

TOPS-10/TOPS-20 DECmail/MS Manual

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This manual describes the commands for the DECmail/MS system.

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CONTENTS

PREFACE

CHAPTER 1 INTRODUCTION

1.1 YOUR KEYBOARD 1-1
1.2 GETTING STARTED 1-5
1.3 DECmail/MS VOCABULARY 1-8
1.4 COMMAND LEVELS 1-13
1.5 MESSAGE SEQUENCES 1-15

CHAPTER 2 READING MESSAGES

2.1 READING AND ACTING UPON MESSAGES 2-1
2.2 PERUSING MESSAGES 2-4
2.3 READING THE "NEXT" MESSAGE 2-5
2.4 READING THE SYSTEM "BULLETIN BOARD" 2-6
2.5 DESIGNATING MAIL AS READ AND UNREAD 2-6

CHAPTER 3 SENDING MESSAGES

3.1 SENDING MAIL 3-1
3.1.1 Continuing Work on an Old Draft 3-6
3.1.2 Editing and Resending a Message 3-6
3.2 ANSWERING MAIL 3-7
3.3 FORWARDING MAIL 3-8
3.4 SENDING NETWORK MAIL 3-9
3.4.1 Sending DECnet Mail 3-9
3.4.2 Correcting Undeliverable DECnet Mail 3-10

CHAPTER 4 OBTAINING INFORMATION

4.1 GETTING HELP 4-1
4.2 CHECKING FOR NEW MAIL 4-1
4.3 OBTAINING SUMMARIES OF MESSAGES 4-2
4.3.1 Scanning a Message File 4-3
4.4 DISPLAYING SYSTEM AND USER INFORMATION 4-5

CHAPTER 5 MANAGING MESSAGE FILES

5.1 MOVING MESSAGES TO OTHER FILES 5-1
5.2 RETRIEVING MESSAGES 5-2
5.3 SAVING OUTGOING MAIL 5-3
5.4 DISCARDING MESSAGES 5-4
5.5 PRINTING MESSAGES ON THE LINE PRINTER 5-5
5.6 FLAGGING MESSAGES 5-5

CHAPTER 6 TAILORING THE DECmail/MS ENVIRONMENT

6.1 DEFINING MESSAGE HEADER ITEMS 6-1
6.2 ESTABLISHING ALTERNATIVE NAMES FOR ADDRESSES 6-3
6.2.1 Defining Alias Names for Users 6-3
6.2.2 Defining Address Lists 6-4
6.3 SET COMMANDS - CUSTOMIZING THE DECmail/MS SYSTEM 6-6
6.4 USING COMMAND FILES 6-11

6.4.1	Initializing the DECmail/MS System	6-11
6.4.2	Processing Command Files	6-13
6.5	CLEARING THE TERMINAL SCREEN	6-13

CHAPTER 7 EXITING

7.1	USING THE EXIT COMMAND	7-1
7.2	USING THE QUIT COMMAND	7-1
7.3	ISSUING CTRL/C	7-1
7.4	ISSUING CTRL/Z (TOPS-10)	7-1
7.5	LEAVING THE DECmail/MS SESSION TEMPORARILY	7-2

APPENDIX A ERROR INFORMATION

A.1	ERROR MESSAGES	A-1
A.2	REPAIRING DAMAGED MESSAGES	A-3

APPENDIX B MESSAGE FILE FORMAT

INDEX

FIGURES

B-1	Message File	B-1
-----	------------------------	-----

PREFACE

The DECmail/MS mail system allows TOPS-10 and TOPS-20 users to send messages to, and receive them from, other users. This mail system also provides users with facilities for filing, retrieving, editing, and discarding these messages.

The DECmail/MS system adheres to the Request for Comments 822 standard (RFC822). RFC822 is the name of the ARPANET computer network mail format standard. It is the oldest and most widely-known electronic mail standard, and forms the basis of many others, which are usually subsets. While the DECmail/MS system does not implement everything in the standard, it never generates messages that violate it.

The TOPS-10/TOPS-20 DECmail/MS Manual addresses users at all levels of expertise, introducing the beginner to the DECmail/MS system, then describing the DECmail commands in functional groupings.

MANUAL ORGANIZATION

Chapter 1 discusses DECmail/MS and operating system concepts, and shows the beginner how to use basic DECmail/MS commands.

Chapter 2 describes the various ways of reading messages. It also tells how to act upon a message that has just been read.

Chapter 3 discusses how to send messages. Included in this chapter is information on replying to mail, forwarding mail, and sending network mail.

Chapter 4 presents the DECmail/MS commands for obtaining information.

Chapter 5 discusses managing message files.

Chapter 6 shows how to customize the DECmail/MS system.

Chapter 7 explains how to exit from the various DECmail/MS command levels and from the DECmail/MS system itself.

Appendix A lists error messages and their explanations and shows how to repair damaged files.

Appendix B shows the message file format.

For supplemental information, refer to the latest copies of the following manuals:

TOPS-10 Operating System Commands Manual

TOPS-20 User's Guide

TOPS-20 Commands Reference Manual

CONVENTIONS

This manual uses the following conventions and symbols:

- | | |
|---------------|--|
| n | A number. |
| <RET> or <CR> | A directive for you to press the RETURN key. |
| <ESC> | A directive for you to press the ESC key. |
| date and time | A set of alphanumeric characters that specifies date and time, for example, 14-JULY-82 12:00:00 or 10/4/82. Time of day is represented by a 24-hour notation; 17:00:00 means 5:00 P.M. |
| filespec | The specification for a file. Refer to the description of "file" in Section 1.3. |
| underlining | Input that you are expected to type, as opposed to output generated by the mail system. |
| command | .
.
option
option
option
.
.
. |
| UPPERCASE | In user input representations, information that must be entered exactly as shown. |
| lowercase | In user input representations, variable information that is determined by you. |

DECmail/MS COMMANDS

Command	Function	Level (Top, Read, Send)	Section
BACKUP	Displays the preceding message in sequence	R	2.1
BLANK	Clears the video terminal screen	T,R,S	6.5
CC	Adds names to the "carbon copy" list of recipients	S	3.1
CHECK	Checks mail file for new messages	T	4.2
COPY	Copies messages to specified file	T,R	5.1
CREATE-INIT-FILE	Creates an initialization file	T	6.4.1
DAYTIME	Displays the current date and time	T,R,S	4.4
DEFINE ADDRESS-LIST	Creates address lists	T,R,S	6.2.2
DEFINE ALIAS	Creates aliases to addresses	T,R,S	6.2
DEFINE HEADER-ITEM	Creates user-defined message header items	T,R,S	6.1
DELETE	Marks messages for removal from mail file	T,R	5.4
DIRECTORY	Displays one-line summaries of messages	T,R	4.3
DISPLAY	Shows various parts of the message draft	S	3.1
EDIT TEXT	Allows you to edit the draft with a system text editor	S	3.1
ERASE	Deletes various parts of the message draft	S	3.1
EXIT	Returns to system or logs out	T,R,S	7.1
EXPUNGE	Removes DELETED messages from mail file	T	5.4
FILE	Copies messages--either deletes or retains originals	T,R	5.1
FLAG	Flags messages for future reference	T,R	5.6
FORWARD	Sends received messages to other users	T,R	3.3
GET	Retrieves a specified mail file	T	5.2
HEADERS	Displays one-line summaries of messages	T,R	4.3
HELP	Explains briefly various commands and functions	T,R,S	4.1
INCLUDE	Incorporates user-defined header items	S	3.1
INSERT	Appends a file or message to the draft	S	3.1
MARK	Designates messages as having been read	T,R	2.5
MOVE	Moves messages to other mail files	T,R	5.1

Command	Function	Level (Top, Read, Send)	Section
NEXT	Displays the next message in sequence	T,R	2.3
PRINT	Prints messages on the line printer	T,R	5.5
PUSH	Suspends mail system--enters system command level	T,R,S	7.5
QUIT	Returns you to previous DECmail/MS command level	T,R,S	7.2
READ	Enters read level to display messages in sequence	T	2.1
READ	Displays messages.-- nests read levels	R	2.1
REMOVE	Deletes names from the "To" or "cc" list	S	3.1
*REPAIR	Helps fix undeliverable DECnet mail	T,R	3.4.2
REPLY	Facilitates replying to received mail	T,R	3.2
RETRIEVE DRAFT	Fetches a previously stored draft	T,R	3.1.1
RETRIEVE LAST-MESSAGE	Fetches the last message sent	T,R	3.1.2
RETURN-RECEIPT-REQUESTED	Requests recipients to acknowledge your messages	S	3.1
SAVE DRAFT	Stores a copy of an unfinished message draft	S	3.1
SAVE OUTGOING-MESSAGES	Makes copies of messages you send	T,S	5.3
SEND	Lets you compose and send messages	T,R	3.1
SEND	Sends completed message	S	3.1
SET	Customizes the mail system	T,R,S	6.3
SHOW	Gives information about system and job parameters	T,R,S	4.4
SKIM	Shows header information -- enters read level	T,R	4.3.1
SUBJECT	Allows you to retype the message's subject line	S	3.1
SYSTEM-MESSAGES	Retrieves the public mail file	T	2.4
TAKE	Executes a file of DECmail/MS commands	T,R,S	6.4
TEXT	Allows you to continue composing the message	S	3.1
TO	Adds names to the "To" list of recipients	S	3.1
TYPE	Displays a sequence of messages without pausing	T,R,S	2.2

Command	Function	Level (Top, Read, Send)	Section
UNDELETE	Reverses the effect of the DELETE command	T,R	5.4
UNFLAG	Reverses the effect of the FLAG command	T,R	5.6
UNMARK	Reverses the effect of the MARK command	T,R	2.5
VERBOSE-TYPE	Displays messages in unsuppressed format	T,R,S	2.2

* Systems with network software only

CHAPTER 1

INTRODUCTION

You should read all of Chapter 1 if you are unfamiliar with the DECmail/MS system. This chapter tells you everything you need to know to get the DECmail/MS system working for you. It discusses your terminal keyboard, explains DECmail/MS-specific terms, and takes you through the steps of reading and sending simple messages.

1.1 YOUR KEYBOARD

The keyboard of your terminal is almost exactly like that of a modern electric typewriter. The major difference is that your terminal has a few additional keys, and one or two have new functions. These special terminal keys are described below.

CARRIAGE-RETURN

This key, called RETURN in this manual, has the usual function of indicating that you are finished with the current line of text and wish to move on to the next line. It also indicates to the DECmail/MS system that you are finished typing a command and would now like the DECmail/MS system to act upon the command. (You must end all DECmail/MS commands with a carriage-return. The DECmail/MS system does not act upon a command until you have pressed the RETURN key.)

ESCAPE

This key, called ESC, or ALTMODE on older terminals, is usually found at the upper lefthand corner of the keyboard. It performs a particularly useful function called RECOGNITION. With recognition, you type only the first few characters of a command and then press the ESCAPE key. By doing this, you are asking the DECmail/MS system to type the rest of the command for you and to prompt you for any information that you must supply to this command. The remainder of this section discusses command abbreviation and recognition.

Many DECmail/MS commands have long names, and typing an entire name could be tedious and error prone. In order to save you some typing, the DECmail/MS system allows you to type only as much of a command name as is necessary to uniquely specify it. For example, consider the two commands that begin with the letter F: FLAG and FORWARD. If you type only F, the DECmail/MS system cannot know whether you mean FLAG or FORWARD, since both begin with F. If, however, you type FO, the DECmail/MS system knows you mean FORWARD. Similarly, FL is a valid abbreviation for FLAG.

INTRODUCTION

NOTE

Exception: For some of the more commonly used commands, you need type only the first letter: DELETE, HEADERS, READ, SEND, TYPE. It does not matter that other commands begin with the same letter. Likewise, you need type only EX for the EXIT command.

Using abbreviations at all times can save you typing, but can leave a trail of obscure-looking characters on your terminal. Also, you sometimes do not know how much of a command you need to type before the DECmail/MS system will be able to recognize it, especially if you are inexperienced.

The ESCAPE key takes care of the problems mentioned above. If you think you have typed enough of a command name for the DECmail/MS system to recognize, press the ESCAPE key. If you have typed enough of the name, the DECmail/MS system finishes typing the name for you. If you have not typed enough, so that what you have typed is ambiguous, the DECmail/MS system will ring the terminal's bell. And if there are no commands beginning with the abbreviation you have typed, the DECmail/MS system will send you a message telling you so.

Returning to the previous example with the two commands beginning with F, if you were to type FO and then press the ESCAPE key, the DECmail/MS system would type the letters RWARD to complete the word FORWARD.

Using recognition has one additional advantage: if the command whose name is being typed requires additional information, pressing the ESCAPE key causes the DECmail/MS system to type guide words in parentheses which indicate what you are expected to type next. In this example, if you typed FO<ESC>, you would see this on your screen:

```
FO<ESC>rward (messages)
```

The word "messages" is a guide word for the FORWARD command. It indicates that you are to specify which messages to be forwarded. If you are unsure of what you should type after a set of guide words, type a question mark (?) to get a complete list of options. The question mark feature is described below.

QUESTION MARK

At any time, if you are not sure of the commands or command arguments (additional information that you supply to a command) that are available to you, you can type a question mark, and the DECmail/MS system lists them for you. For example, when you begin the mail session, the DECmail/MS system prompts and awaits your first command as follows:

```
MS>
```

INTRODUCTION

You are now at top level. To get a list of the top-level commands, type a question mark, and they will be displayed similar to the following:

```
MS>? one of the following:
Blank      Check      Copy      Create-init-file
Daytime    Define     Delete    Directory
Exit       Expunge    File      Flag
Forward    Get        Headers   Help
Mark       Move       Next      Print
Push       Quit       Read      Repair
Reply      Retrieve   Save      Send
Set        Show      Skim      System-messages
Take       Type      Undelete  Unflag
Unmark     Verbose-type
```

You now know what commands the DECmail/MS system will accept at this time.

To get a list of arguments for a command, use the question mark as follows:

```
MS>show (information about) ? one of the following:
Address-list  Aliases  Daytime  Defaults
Header-items  Status   Version
```

The DECmail/MS system then retypes the command line up to the point where you entered the question mark:

```
MS>show (information about)
```

Now, you can type one of the available arguments.

You can also type a question mark when you have entered only part of a command:

```
MS>s? one of the following:
Save      Send      Set      Show
Skim      System-messages
MS>s
```

CONTROL CHARACTERS

Another key on your terminal that is not found on typewriter keyboards is the CONTROL key, which is usually labeled CTRL. This works much like the SHIFT key, in that it does nothing by itself, but modifies the action of any key you press while holding the CTRL key down. Characters typed while holding the CTRL key down are called control characters; for instance, the character you generate when you hold the CTRL key down and type the letter U is called CTRL/U. Control characters allow you to perform a number of system functions.

INTRODUCTION

The following is a list of control characters that you are likely to use during a DECmail/MS session:

- o CTRL/Z tells the DECmail/MS system that you have finished typing the text of a message you are sending and that the DECMAIL/MS system can now send the message. You would not want to use any ordinary text character for this purpose, because that character then would not be allowed in the text of a message you are sending. Since control characters do not ordinarily print anything on your screen, but simply instruct the system to do something for you, using control characters is the only good way to type commands to the system while you are entering the text of a message. Refer to Section 3.1 for a description of other control characters you might want to use while preparing a message.

| On TOPS-10 systems, CTRL/Z exits the mail session when your
| terminal is at a command level.

- o CTRL/C aborts the DECmail/MS session.
- o CTRL/U erases all the information you have typed since the last carriage-return.
- o CTRL/O aborts the output of any information that is being typed on your terminal. A second CTRL/O resumes typing if the output was long enough not to have completed yet. Thus, CTRL/O works like a toggle switch that alternately enables and disables output.

Suppose you gave the HEADERS ALL command:

| MS>HEADERS (MESSAGES) ALL

The DECmail/MS system would begin typing the following kind of information on your terminal. You could at any point type CTRL/O when you have seen enough:

```
MS>HEADERS ALL
 1 23-Dec "Phyllis Angers, DTN 2|ALTERED LABOR HOURS (485 chars)
A 2 20-Dec CSMALL@HYPER          |HAPPY HOLIDAYS TY EXT (30156 chars)
A 3 20-Dec MEYERS@CLOYD          |Re: question (452 chars)
A 4 20-Dec LIBRARIAN@GNUVAX      |RE: files (258 chars)
 5 20-Dec TUCKER@GIDNEY          |Re: test (361 chars)
 6 20-Dec TUCKER@GIDNEY          |test (214 chars)
A 7 20-Dec Mark Pratt <PRATT@GIDN|Re: task list and bugs 1 (696 chars)
A 8 18-Dec Mark Pr O...
```

- o CTRL/S and CTRL/Q are control characters you can use to pause and continue respectively during the output of information on your terminal. Using the CTRL/O example above, you could issue CTRL/S, instead, to temporarily halt output of information to your terminal. Then, you could issue CTRL/Q to continue output at the point where you left off. This differs from CTRL/O, which cancels the current output.

NOTE

Some terminals do not accept the CTRL/Q and CTRL/S characters. If your terminal does not, ask your system manager what the pause and continue characters are for your terminal.

INTRODUCTION

- o CTRL/H retypes the last command you issued if it resulted in an error message. This control character must be the first thing you type after the error. It types the command up to the point where you made the error, letting you know what part of the command line you need to correct and saving you from having to retype the whole command again. For example, suppose you misspelled part of a command:

```
MS>show (information about) degaults
```

The DECmail/MS system sends you the following error message:

```
?MS command error: Does not match switch or keyword: "degaults"
```

You then issue CTRL/H:

```
MS>^H
```

and the DECmail/MS system retypes the line as follows:

```
MS>show (information about)
```

Now type the rest of the command correctly:

```
MS>show (information about) defaults
```

- o CTRL/W deletes the previous word in a message you are typing.

1.2 GETTING STARTED

NOTE

TOPS-20

If your system manager has defined the POBOX: disk area to be other than the public structure, you must issue TOPS-20 operating system commands to ACCESS or CONNECT to your directory on POBOX:.

Now that you are familiar with your keyboard, try sending yourself some mail and reading it.

To begin, start the mail system by typing "MS" after you have successfully logged onto the computer.

- o On TOPS-10 systems, your terminal display looks something like this:

```
.MS
 4 messages (4610 characters), in 8 disk blocks.
Message 1 flagged.
MS>
```

- o On TOPS-20 systems, your terminal display looks something like this:

```
@MS
Last read: Thursday, December 12, 1985 15:03-EST.
131 messages (201417 characters), in 79 disk pages.
Messages 87, 116, 119 flagged.
MS>
```

INTRODUCTION

The lines that appear between the MS command and the MS> prompt give you the status of your mail file. These lines will appear only if someone has sent you mail. Refer to the description of the SHOW STATUS command in Section 4.4 for details on this information.

Notice that the DECmail/MS system is now prompting you for a command. You give a command by typing the command's name, possibly followed by additional information (depending upon the particular command), and then pressing the RETURN key. You are now at top level. (You have entered another command level if the mail system ever prompts you with anything other than MS>. The QUIT command always returns you to the previous level.)

NOTE

The following examples were created on a TOPS-20 system. Any TOPS-10 differences are described where applicable.

Sending A Message

To send a message, issue the SEND command from top level. After you give the SEND command, the DECmail/MS system prompts you for the "To" and "cc" lists, and for the subject. In the following example, specify yourself as the recipient by typing a period (.) when the DECmail/MS system asks you for the "To" list.

```
MS>SEND
To: .
cc:
Subject: Practicing
```

Now, the DECmail/MS system types the following help message on your terminal:

```
Message (ESC to enter Send level, CTRL/Z to send, CTRL/K to
redisplay, CTRL/B to insert file, CTRL/E to enter editor):
```

This message lets you know what you can do while typing the text of your message. You can press the ESCAPE key or issue one of the control characters to:

- o Enter send level <ESC>. At send level, you can issue any of the send-level commands to affect the message, or to perform a variety of other tasks. If you decide to enter send level, issue the TEXT command when you are ready to return to your message text. Or issue the SEND command if you are ready to send the message when you are at send level.
- o Send the message as is <CTRL/Z>.
- o Display the message text <CTRL/K>.
- o Insert a file in this message <CTRL/B>. This feature is further described at the end of Section 3.1.
- o Finish preparing the message using your default text editor <CTRL/E>. When you exit from the editor, you are automatically placed at send level, which is described above. Refer to the description of the EDIT TEXT command in Section 3.1 for additional information.

INTRODUCTION

After the DECmail/MS system types the help message, anything you type (other than ESC and the control characters) is assumed to be the text of your message.

Type a line of text and issue CTRL/Z to send the message:

```
Remember the 10:00 meeting tomorrow.
^Z
```

The DECmail/MS system types information similar to the following, letting you know that the message was successfully sent to your mail file:

```
Processing mail...
Mail queued for delivery by MX
MS>
  There is 1 additional message:
N   132 23-Dec TUCKER@CLOYD          |Practicing (230 chars)
  Currently at message 1.
MS>
```

| After the MX program delivers the message to your mail file, summary
| information about this new, "additional" message is displayed. Among
| the items shown are the date of the message, the subject line, and the
| message number (132). In this example, the recipient (and sender) is
| a user who is known to the system as TUCKER. Refer to the description
| of the HEADERS command in Section 4.3 for further information on
| message summaries.

You could just as easily have sent this message to any number of other people by including their addresses (separated by commas) in the "To" or "cc" list.

Refer to Section 3.1 for further information on sending messages, and to Section 1.3 for information on the mail file and addresses.

Reading A Message

Now read the message that you just sent to yourself:

```
MS>READ<ESC>(MESSAGES) NEW
  Message 132 (230 chars), received Monday, December 23, 1985 17:23-EST
  Sender: TUCKER
  Date: 23 Dec 1985 1723-EST
  From: TUCKER@CLOYD
  To: TUCKER@CLOYD
  Subject: Practicing
  Message-ID: <"MS11(5062)+GLXLIB5(0)" 12169493415.152.542.84314 at CLOYD>
```

```
Remember the 10:00 meeting tomorrow.
```

```
-----
MS read>>
```

This command displays all messages in the current message file that you have not read. After the READ command displays a message, it leaves your terminal at read-command level, as indicated by the "MS read>>" prompt. You can then issue any of the read-level commands to affect this "current message." If you do not want to do anything with the message, press the RETURN key to read the next new message (or to return to top level if there are no other new messages).

INTRODUCTION

Now remove this message from your mail file:

1. First, mark the message for deletion.

```
MS read>>DELETE
MS read>>
```

2. Return to top level and issue the EXPUNGE command. This command completes the action of the DELETE command--it removes all traces of a message from your mail file.

```
MS read>><RET>
MS>EXPUNGE
Expunging deleted messages - OK
MS>
```

Finish the DECmail/MS session by typing the EXIT command:

```
MS>EXIT
```

1.3 DECmail/MS VOCABULARY

This section defines various DECmail/MS terms that you should know.

ADDRESS

An address tells the DECmail/MS system where to send a message. There are two kinds of address, depending on whether the person you are sending a message to uses the same computer that you do or a different one.

- o Local Address - for users on the same computer system or in the same TOPS-20 computer cluster. A local address is just a username. Username is defined later in this section.
- o Network Address - for users connected through a computer network. A network address has two parts: a username (just like a local address), and a hostname, which identifies the computer. For example, somebody who uses a computer called HOST2 and who has a username of Joe would have a network address of:

```
Joe@HOST2
```

An address can also include a personal name (described later in this section) in the form:

```
personal name <address>
```

CURRENT MESSAGE FILE

Since the DECmail/MS system can handle only one message file at a time, the one you are currently dealing with is called the current message file. You can think of the DECmail/MS system as a desk that is big enough to hold only one file folder. You can change message files with the GET or SYSTEM-MESSAGES command. Until you give one of these commands, the current message file is your mail file (described below). A message file is created the first time someone sends you mail (mail file), or with the COPY, MOVE, or SAVE OUTGOING-MESSAGES command.

INTRODUCTION

FILE

Several DECmail/MS commands require that you supply the name of a file. A file is similar to the contents of an ordinary file folder. A file has a name, called a filespec (short for file specification). Although a filespec can have numerous parts, including the device, directory, name, and extension or type, ordinarily you can ignore everything but the name and extension. You can set the default directory for the DECmail/MS session with the SET DEFAULT DIRECTORY command.

- o On TOPS-10 systems, a file name or extension can consist of any sequence of uppercase letters and numbers. The file name can be up to six characters long; the extension can be only three characters long. For example, "MEMO1", "JULY", and "OPEN" are all valid names; "REPORTS" is not (contains seven characters), and "JUL-81" is not (the hyphen is neither a letter nor a number). The extension is separated from the name by a dot, so that MAIL.TXT is a file whose name is MAIL and whose extension is TXT. For more information about file specifications, see the TOPS-10 Operating System Commands Manual.
- o On TOPS-20 systems, a file name or file type can consist of any sequence of letters, numbers, and hyphens up to 39 characters long; it must not contain spaces, dots, or other special characters. For instance, "name1", "budget", "memo-to-the-president", and "my-letter" are all valid names. "This is my letter" is not; it contains spaces. The file type is separated from the file name by a dot, so that MAIL.TXT is a file whose name is MAIL and whose type is TXT. For complete information on file specifications, see the TOPS-20 User's Guide.

The file extension or type is useful for classifying groups of files. For example, you could assign the same extension or type to many different files. The DECmail/MS system, for instance, assigns .TXT to all files you create with the COPY, MOVE, or SAVE OUTGOING-MESSAGES command if you do not specify otherwise.

MAIL FILE

Every user has his or her own personal message file, called a mail file. This is just like an "in" basket. All incoming messages go into your mail file. This file is named MAIL.TXT on TOPS-10 systems, and MAIL.TXT.1 on TOPS-20 systems. Your mail file is automatically created for you in your logged-in directory (TOPS-10) or your directory on the POBOX: disk structure (TOPS-20) the first time someone sends you mail.

On TOPS-20 systems, if your system manager has defined POBOX: to be other than the public structure, you must issue the operating system command to either CONNECT to or ACCESS POBOX:.

INTRODUCTION

NOTE

MAIL.TXT must include the generation number of 1 on TOPS-20 systems. If for some reason you create or edit your own mail file with an editor, you will have to rename MAIL.TXT.* to MAIL.TXT.1.

You should not delete the mail file with an operating system command. Instead, if the need arises, you should DELETE then EXPUNGE the messages. Refer to Section 5.4.

MESSAGE

The DECmail/MS system sends, receives, and files messages. Messages are exactly like office memos; they are sent "To" some people and "cc" to others. They have a subject and some text. They also have a date, which is supplied automatically when you send the message.

A message is composed of two parts:

- o The message header, or "header area," which contains such items as the date, subject, "To", and "cc" lists, and other identifying information. The message header is further described below.
- o The "text part," which contains the actual text of the message.

MESSAGE FILE

The DECmail/MS system deals with message files, one at a time. A message file is a file containing one or more messages. The DECmail/MS system can handle only one file at a time, but it is easy for you to put one file away and retrieve another one with the GET or SYSTEM-MESSAGES command. A message file is created the first time someone sends you mail (mail file), or with the COPY, MOVE, or SAVE OUTGOING-MESSAGES command.

INTRODUCTION

MESSAGE HEADER

The first few lines of a message are called the message header, or header area. The header area is separated from the text of the message by a blank line. The header area consists of several "header items." A header item consists of the header item's name, a colon, and then the data portion of the header item (which may extend over more than one line). Typical header items that the DECmail/MS system always includes are the date the message was sent, the subject, "To" and "cc" lists, and the name of the sender. You can use the DEFINE HEADER-ITEM command to define your own header items. Here is a sample message:

```
Message 176 (775 chars), received Monday, January 27, 1986 09:27-EST
Sender: PRATT
Date: 27 Jan 1986 0927-EST
From: Mark Pratt <PRATT@GREEN>
To: Appellof@GREEN, Appellof@GOLD, JRossell@GREEN,
    Mayo@GREEN, Pratt@GREEN, Santee@GREEN, Ned@KL1026,
    TGrady@GREEN, Tucker@GREEN, Waddington@GREEN, Hdavis@GREEN
cc: Schmitt@BLUE
Subject: Meeting
Message-ID: <"MS11(5116)+GLXLIB5(0)" 12178581754.213.51.31405 at Green>
```

I have the Shoebox conference room reserved every Monday from 3-4 pm for our weekly status meeting. This room is signed up from now until the time the product ships.

| In this example, the lines beginning with Sender: and ending with
| "Message-ID:", are the header area. Next is a blank line, which
| separates the header area from the message text. Finally, there are
| three lines of message text and the closing line, which contains a
| string of hyphens. There are seven header items present in this
| message: "Sender:", "Date:", "From:", "To:", "cc:", "Subject:", and
| "Message-ID:". The "To:" item in this message illustrates the case of
| a header item that is too long to fit on one line. The strings GREEN,
| BLUE, KL1026, and GOLD are names of different computers in a network.

The "Message-ID:" helps identify a message, and is of concern only to the DECmail/MS system. The DECmail/MS system automatically inserts this line in your message. It is unique for every message created. You can suppress output of this line with the SET SUPPRESSED-HEADERS or the SET ONLY-HEADERS-SHOWN command.

| The prefix line at the top of the message tells when it was received
| and gives the length of the message and its relative position in the
| mail file (176).

MESSAGE NUMBER

| Each message in a file has a message number; the messages are numbered
| from one up to however many messages there are in the file. You could
| use these numbers to let the DECmail/MS system know what messages you
| want it to perform some action upon. (Refer to the description of
| message sequence below.) Note that messages are renumbered as messages
| are deleted from a file--message numbers are based upon the messages'
| relative positions in a file. The HEADERS and DIRECTORY commands,
| described in Section 4.3, list the numbers assigned to messages.

INTRODUCTION

MESSAGE SEQUENCE

A message sequence is a keyword or list of message numbers that you supply to various DECmail/MS commands. This lets the mail system know what messages are to be handled. Message sequences are further described in Section 1.5.

PERSONAL NAME

A personal name is optional information that accompanies an address. It is a more human-readable name. You can specify this information for your own and recipient addresses.

The SET PERSONAL-NAME command adds your personal name to all your outgoing mail (see Section 6.3).

To give a personal name for recipient addresses, type it, and add after it the address enclosed in angle brackets:

```
Sam Slade <SSLADE@DETEC>
```

Giving a personal name for recipient addresses may be useful in such cases where a secretary receives mail and later distributes it to others. The personal name could indicate the final intended recipient, and the address would be the secretary's. The secretary would FORWARD (see Section 3.3) these messages to intended recipients.

The personal name can contain any letter or digit, space, hyphen, dollar sign, underscore, or dot. By enclosing it in quotes, you can include any other character:

```
"Sam Slade, private eye" <SSLADE@DETEC>
```

Some systems to which you send mail may require all personal names to be enclosed in quotes.

USERNAME

You send messages to, and receive them from, users of a computer. Each user of a computer has a username, which is the name by which the computer knows that person. This name is often a last name.

On TOPS-10 and TOPS-20 systems, usernames are composed of up to 39 characters of letters, digits, and hyphens. (Note that a period (.) is taken by the DECmail/MS system to be your own username in local and network addresses. That is, you can include a period, for example, in the "To" or "cc" list.)

When sending mail to systems that do not run TOPS-10 or TOPS-20, however, the rules for forming usernames may be different. If you are sending network mail to a user whose username contains characters not allowed in TOPS-10/TOPS-20 usernames, then you must enclose the username inside double quotes (" "). Spaces and special characters such as the following are not allowed in TOPS-10 and TOPS-20 usernames unless they are enclosed in double quotes:

```
( ) < > @ , ; : " ! % [ ] \
```

However, the following special characters are allowed:

```
$ _ - .
```

INTRODUCTION

Refer to the description of ADDRESS for related information.

NOTE

On TOPS-10 systems, you can specify PPNs within square brackets instead of a local username: [30,5701]. The mail system translates the PPN to the corresponding username. You can also include a personal name (described earlier) with such usernames. It is recommended that you use usernames whenever possible.

1.4 COMMAND LEVELS

The DECmail/MS system has three command levels: top level, read level, and send level. Each command level has a different prompt, and each level has its own set of commands. Top Level, which is the level you see when you begin a DECmail/MS session, has commands for dealing with message files as a whole, or for manipulating entire groups of messages at once. Read Level is in effect after you have selected messages to read, and has commands for dealing with the current message or, optionally, other messages. Send Level contains commands for composing, editing, and filing drafts of messages, and for sending the message once it is complete.

At all levels, the QUIT command always returns you to the previous level; thus, typing QUIT at top level causes you to exit from the DECmail/MS session. Also, typing EXIT from any level ends the DECmail/MS session, and executes the EXPUNGE command unless you specify otherwise with the SET AUTO-EXPUNGE command.

TOP LEVEL

When you first run the mail system, you are at top level. At this level, the DECmail/MS system prompts you for a command by typing:

```
MS>
```

To get a list of top-level commands, type a question mark to the top-level prompt.

NOTE

You can issue top-level commands from operating system command level also. For example, to read the first two messages in your mail file, you can type:

```
.MS TYPE 1:2 (TOPS-10)
```

or

```
@MS TYPE 1:2 (TOPS-20)
```

After the messages are displayed, you are returned to operating system command level. Issuing DECmail/MS commands from this level saves you time and keystrokes. This manual, however, discusses issuing commands from the three DECmail/MS command levels only. It assumes that you are issuing the various commands while in the middle of a DECmail/MS session.

INTRODUCTION

READ LEVEL

When you issue the READ command, the DECmail/MS system places you at read level. The read-level prompt is:

```
MS read>>
```

You give the READ command a message sequence, which tells the DECmail/MS system which messages you want to read. The system then types the first message in the sequence, and prompts you for a command. You can now type a read-level command to do something with that message, or press the RETURN key to go on to the next message in the sequence. When there are no more messages to read, the DECmail/MS system returns to top level. For more details on read level, refer to Section 2.1.

Most top-level commands are also available at read level.

To get a list of read-level commands, type a question mark to the read-level prompt:

```
MS read>>? one of the following:
```

Backup	Blank	Copy	Daytime	Define
Delete	Directory	Exit	File	Flag
Forward	Headers	Help	Mark	Move
Next	Print	Push	Quit	Read
Repair	Reply	Retrieve	Send	Set
Show	Skim	Take	Type	Undelete
Unflag	Unmark	Verbose-type		

SEND LEVEL

Send level is invoked in one of the following ways:

- o You ask the DECmail/MS system to put you there, by pressing the ESCAPE key while entering the text of a message you are sending.
- o You use the RETRIEVE DRAFT command to continue working on a draft which you had previously saved with the SAVE-DRAFT command.
- o You use the RETRIEVE LAST-MESSAGE command to retrieve the draft of the last message you sent.
- o You use the REPAIR command to correct an undeliverable message.
- o The DECmail/MS system puts you there automatically, because it encountered some problem while sending a message.

The send-level prompt is:

```
MS send>>
```

INTRODUCTION

The commands available at send level allow you to modify any part of a message that you are in the process of sending. You can add or delete users in the "To" or "cc" lists, change the subject line, edit the text of the message, and so forth. If the DECmail/MS system encounters any difficulties in sending the message, it automatically puts you into send level, so that you have a chance to fix the part of the message that caused the problem. At send level, you can return to the previous level without sending the message by giving the QUIT command; or you can give the SEND command, which sends the message and then returns to the previous command level.

To get a list of send-level commands, type a question mark to the send-level prompt:

MS send>>? one of the following:

Blank	cc
Daytime	Define
Display	Edit
Erase	Exit
Help	Include
Insert	Push
Quit	Remove
Return-receipt-requested	Save
Send	Set
Show	Subject
Take	Text
To	Type
Verbose-type	

1.5 MESSAGE SEQUENCES

Many of the DECmail/MS commands require you to specify a "message sequence." A message sequence is a keyword or a list of message numbers that indicate the messages upon which an action is to be performed. For example, if you give the TYPE command, you are expected to indicate the messages to be displayed. To get a complete list of all the possible ways to select messages, type a question mark when you are prompted for a message sequence, as follows:

```
PR<ESC>INT (messages) ?
```

You can specify a message sequence by means of message numbers and special characters, as follows:

- o a single message number - (7)
- o a list of message numbers - (7,18,75,...)
- o a range of message numbers - (3:30)
- o the current message number - (.)
- o the last message in the file - (%)
- o any combination of ranges and single messages in a list - (.,9,17:51,...,%)

INTRODUCTION

| (Note that the HEADERS and DIRECTORY commands list the numbers
| assigned to messages.)

In addition, you can give one of the following keywords for the message sequence:

ALL refers to all messages in the mail file.

ANSWERED refers to messages that you have answered with the REPLY command; the HEADERS and DIRECTORY commands display an "A" in the left margin for all answered messages.

BEFORE date and time refers to messages dated prior to the specified date and time.

CURRENT refers to the current message, that is, the one you most recently accessed with a DECmail/MS command; it is the first message in the file if you have not yet given any commands. This is the default message sequence for most commands. The SHOW STATUS command displays the current message number.

DELETED refers to all messages that you have specified in a DELETE or MOVE command but have not yet erased with the EXPUNGE command; the HEADERS and DIRECTORY commands display a "D" in the left margin for all deleted messages.

FIRST n refers to the first n messages in the mail file. If you do not specify n, the first message is accessed.

FLAGGED refers to all messages that you have specified in a FLAG command; the HEADERS and DIRECTORY commands display an "F" in the left margin for all flagged messages.

FROM string refers to messages in the file containing the specified string in the "From" line of the header. The string can contain blanks.

INVERSE displays messages in the file in the order of last-numbered to first-numbered.

KEYWORD string refers to all messages that contain the specified string within the header or text portion of the message. The string can contain blanks.

LARGER n refers to all messages having more than the specified number (n) of characters; the HEADERS and DIRECTORY commands report the number of characters in a message.

LAST n refers to the last n (decimal number) messages in the file, beginning with the last message. If you do not specify n, the last message is accessed.

INTRODUCTION

NEW	refers to all messages that have not been read or specified in a MARK command; also, all previously read messages that you have specified in an UNMARK command. NEW is the default argument for the READ command when issued from top level. The HEADERS and DIRECTORY commands display an "N" in the left margin for all "new" messages.
NEXT n	refers to the next n messages from the current one. For example, MOVE 5, followed by HEADERS NEXT 4 would summarize messages 6, 7, 8, and 9.
OLD	refers to all messages that you have read or that you have specified in a MARK command.
RELATED-TO message sequence	refers to all replies to the specified messages that are contained in the current file.
SAME	refers to the messages you last specified in a command. Message <u>numbers</u> may be different if you issued an EXPUNGE command in the interim; however, the same messages are retrieved.
SINCE date and time	refers to all messages dated after the specified date and time.
SMALLER n	refers to all messages having fewer than the specified number (n) of characters; the HEADERS and DIRECTORY commands report the number of characters in a message.
SORTED	displays messages in the file in the order of first-dated to last-dated.
SUBJECT string	refers to all messages containing the specified string in the "Subject" line of the header. The string can contain blanks.
TO string	refers to all messages containing the specified string in the "To" line of the header. The string can contain blanks.
UNANSWERED	refers to messages that you have not answered with the REPLY command.
UNDELETED	excludes messages that have been specified in a DELETE command.
UNFLAGGED	refers to messages that you have not specified in a FLAG command.

INTRODUCTION

EXAMPLES

The simplest sequence is a message number, or list of numbers separated by commas. For instance, the following is a message sequence that specifies the first six messages in a file:

```
1,2,3,4,5,6
```

To read the first six messages in a file, you can type:

```
MS>READ 1,2,3,4,5,6
```

A shorthand way to specify the same thing is "1:6". You can mix these: the message sequence "1:4,7:10" means the same as "1,2,3,4,7,8,9,10".

You can also select messages based on their contents. For instance, the message sequence below selects all messages in the current file with the word "budget" in the subject:

```
Subject Budget
```

Likewise, the following command can be used to read all messages with the word "monthly" in their subject:

```
MS>READ SUBJECT monthly
```

And the following command lets you read the first nine messages in your current message file:

```
MS>READ FIRST 9
```

One particularly useful message sequence is the word "same". This directs the DECmail/MS system to use the same message sequence you used in your last command. For instance, suppose you want to delete all messages from a user named Jones. However, before deleting them you would like to check to be sure that they are the correct messages. To do this, you might first give the following command to get a one-line summary of each message from Jones:

```
MS>HEADERS FROM Jones
```

Once you are satisfied that you really want to delete all these messages, you can then type:

```
MS>DELETE SAME
```

CHAPTER 2

READING MESSAGES

Chapter 2 describes the DECmail/MS commands that allow you to display messages on your terminal or copy messages on a line printer.

2.1 READING AND ACTING UPON MESSAGES

To read a message and subsequently perform some action on that message, use the READ command. This command displays messages, stopping at read level after each one. This allows you to manipulate messages as you read them. The READ command is available at both top and read levels.

Command format:

```
MS>READ (MESSAGES) message sequence
```

or

```
MS READ>>READ (MESSAGES) message sequence
```

where:

message sequence specifies the messages you want to read. At top level, NEW is the default message sequence. At read level, CURRENT is the default message sequence.[1]

After each message is displayed, the DECmail/MS system is at read level and prompts with:

```
MS read>>
```

You can then issue one of the following read-level commands.

READ-LEVEL COMMANDS

BACKUP

Displays the previous message in the sequence you specified with the READ command. The BACKUP command is the same as the PREVIOUS command.

BLANK

Clears the video terminal screen. Section 6.5 discusses the BLANK command.

[1] At read level, it is advisable to use the TYPE command instead of the READ command for the current message. Refer to the description of the READ read-level command, below.

READING MESSAGES

COPY filespec
Copies the current message to another file, retaining the original. Refer to the full description of the COPY command in Section 5.1.

|
| **DAYTIME**
| Displays the current date and time.

ADDRESS-LIST
DEFINE ALIAS
 HEADER-ITEM
Allows you to create address lists, alias names for users, or new message header items. Refer to Chapter 6 for descriptions.

DELETE message sequence
Marks messages for removal from the mail file. Refer to the full description of the DELETE command in Section 5.4.

|
| **DIRECTORY message sequence**
| Gives a one-line summary of messages. The DIRECTORY command
| is the same as the HEADERS command. Refer to the full
| description of the DIRECTORY command in Section 4.3.

EXIT
Ends your DECmail/MS session; returns you to operating system command level or logs you off the system. Refer to Section 7.1 for details on the EXIT command.

FILE filespec
Copies the current message to another file and gives you the option to delete the original. Refer to the full description of the FILE command in Section 5.1.

FLAG message sequence
Marks messages for future reference. Refer to the full description of the FLAG command in Section 5.6.

FORWARD message sequence
Sends received messages to other users. Refer to the full description of the FORWARD command in Section 3.3.

|
| **HEADERS message sequence**
| Gives a one-line summary of messages. The HEADERS command
| is the same as the DIRECTORY command. Refer to the full
| description of the HEADERS command in Section 4.3.

HELP topic
Provides short explanations of various DECmail/MS commands and functions. Refer to the full description of the HELP command in Section 4.1 for the list of topics you can request with the HELP command.

MARK message sequence
Designates messages as having been read. Refer to the full description of the MARK command in Section 2.5.

MOVE filespec
Copies the current message to another file and deletes the original. Refer to the full description of the MOVE command in Section 5.1.

READING MESSAGES

- NEXT**
Displays the next message in the sequence you specified with the READ command. This is the default command at read level. That is, if you press the RETURN key, this command is executed. Section 2.3 discusses the NEXT command.
- PRINT**
Prints the current message on the line printer. Section 5.5 discusses the PRINT command.
- PUSH**
Suspends the DECmail/MS system and enters operating system command level. Refer to the full description of the PUSH command in Section 7.5.
- QUIT**
Returns you to the previous DECmail/MS command level. Refer to the full description of the QUIT command in Section 7.2.
- READ message sequence**
Displays a new message sequence on your terminal. This command, at read level, is useful for leaving the current message sequence in order to look at a new set of messages. For example, you may want to read new messages that were just sent to you, and respond to those messages or delete them. You may then need to look at yet another set of messages. The DECmail/MS system helps you to keep track of message sequences by attaching a number to the read prompt [MS read(1)>>] and incrementing that number every time you issue the READ command at read level. That number is decremented when you leave a message sequence and return to the previous level.
- To simply reread the current message, use the TYPE command.
- REPAIR numeric file identifier**
Allows repair of undeliverable network mail. Refer to Section 3.4.2 for details on the REPAIR command.
- REPLY ALL**
SENDER-ONLY
Facilitates replying to the current message. Refer to Section 3.2 for a full description of the REPLY command.
- RETRIEVE DRAFT**
LAST-MESSAGE
Fetches the last message sent or a draft previously stored in a file, and enters send level. Sections 3.1.1 and 3.1.2 discuss the RETRIEVE command.
- SEND**
Lets you compose and send a message. Refer to Chapter 3 for a full description of the SEND command.
- SET parameter**
Gives you control over many DECmail/MS operations. Refer to the description of the SET command in Section 6.3 for the list of parameters you can specify.
- SHOW parameter**
Displays a variety of information about the DECmail/MS environment. Refer to the full description of the SHOW command in Section 4.4 for the list of parameters you can specify.

READING MESSAGES

| SKIM message sequence
| Gives a one-line summary of messages and after each summary
| leaves your terminal at the equivalent of read level. Refer
| to Section 4.3.1 for complete information on the SKIM
| command.

TAKE filespec
Executes a file of DECmail/MS commands. Refer to the full
description of the TAKE command in Section 6.4.

EVERYTHING
TYPE HEADER-ITEMS
TEXT
Displays the current message on your terminal. Refer to the
full description of the TYPE command in Section 2.2.

UNDELETE message sequence
Reverses the effect of the DELETE command.

UNFLAG message sequence
Reverses the effect of the FLAG command.

UNMARK message sequence
Reverses the effect of the MARK command. The specified
messages become "new".

EVERYTHING
VERBOSE-TYPE HEADER-ITEMS
TEXT
Displays the current message on your terminal. Refer to the
full description of the VERBOSE-TYPE command in Section 2.2.

When you have finished reading all the messages in the sequence, typing carriage-return or QUIT to the MS READ>> prompt returns you to the previous command level.

Related Commands

The following commands are related to READ. Refer to Section 6.3 for information on these commands.

SET BRIEF-ADDRESS-LIST-DISPLAY

SET ONLY-HEADERS-SHOWN

SET SUPPRESSED-HEADERS

2.2 PERUSING MESSAGES

There may be times when you want to read messages without pausing between them at read level. The TYPE command, available from all three DECmail/MS command levels, allows you to do this. It displays messages and leaves your terminal at the command level you issued it from.

READING MESSAGES

Command format:

```
MS>TYPE (MESSAGES) message sequence
```

```
|
|           EVERYTHING
| MS READ>>TYPE  HEADER-ITEMS
|           TEXT
```

```
MS SEND>>TYPE (MESSAGES) message sequence
```

where:

- ```
|
| o EVERYTHING, HEADER-ITEMS, and TEXT refer to the part of the
| current message you want to display.
|
| o message sequence specifies the messages you want to display.
```

Unlike READ, the TYPE command does not clear the screen before displaying messages.

The VERBOSE-TYPE command also allows you to read messages quickly. It is identical in format and function to the TYPE command, except that it displays messages literally. That is, it ignores any of your SET command directives to suppress header output. Messages are displayed in their entirety.

### Related Commands

The following commands are related to TYPE and VERBOSE-TYPE. Refer to Section 6.3 for information on these commands.

```
SET BRIEF-ADDRESS-LIST-DISPLAY
```

```
SET ONLY-HEADERS-SHOWN
```

```
SET SUPPRESSED-HEADERS
```

### 2.3 READING THE "NEXT" MESSAGE

To read succeeding messages in a mail file, you can issue the NEXT command from top or read level.

Command format:

```
MS>NEXT (MESSAGE)
```

or

```
MS READ>>NEXT (MESSAGE IN SEQUENCE)
```

The NEXT command has different effects according to the level from which it is issued. From top level, it displays the message following the current one in the file. From read level, it displays the next message in the sequence you specified with the READ command. The NEXT command is the default command at read level.

```
|
| You can also display succeeding messages with the READ, TYPE, or
| VERBOSE-TYPE command followed by the NEXT message sequence.
```

## READING MESSAGES

### 2.4 READING THE SYSTEM "BULLETIN BOARD"

A DECmail/MS bulletin board is a message file of general interest to users. As an unprivileged user, you can perform such activities as reading, printing, and copying messages from the file. However, only privileged users can send messages to it or delete them.

The operator or system manager may send messages to this file (that is, to SYSTEM) to inform you of an upcoming system shutdown, and so on.

You access this file with the SYSTEM-MESSAGES command to make it your current message file.

Command format:

```
MS><u>SYSTEM-MESSAGES
```

When new messages are sent to this file, the following line appears on your terminal:

```
[<system> <time> New SYSTEM mail available]
```

where:

- o system is the name of your system.
- o time is the time of day.

On TOPS-20 systems, messages that were sent to this file after you logged off the system are automatically displayed on your terminal (or in your batch log file) when you log in.

To return to your mail file, give the command:

```
MS><u>GET
```

### 2.5 DESIGNATING MAIL AS READ AND UNREAD

When the DECmail/MS system first starts up, it displays a summary line for each message that you have not yet read. (An "N" appears in the left margin of the line for each of these "new," or unread, messages.) When you read a message using the READ, TYPE or VERBOSE-TYPE command, the DECmail/MS system executes a MARK command for the message; and the message is then designated as an "old," or read, message. (Note that you can specify NEW or OLD as the message sequence argument for DECmail/MS commands.)

You may occasionally want to "mark" messages yourself. Assume, for example, that you receive large volumes of mail and cannot read it right away. You could issue the MARK command for any messages you want to postpone reading. Then these messages would not be included when you or the DECmail/MS system initiated any action on "new" messages. This command is available from top and read levels.

## READING MESSAGES

Command format:

MS>MARK (MESSAGES) message sequence

or

| MS READ>>MARK (MESSAGES) message sequence

where:

message sequence indicates the messages you want to mark. The current message is the default.

The UNMARK command removes the "read" mark from a message, putting it back into the "new" category. Its format is identical to that for the MARK command.



## CHAPTER 3

### SENDING MESSAGES

Chapter 3 describes the DECmail/MS commands that allow you to send messages. Commands in this category include those for composing and editing messages, for forwarding copies of messages you receive, and for replying to messages.

#### 3.1 SENDING MAIL

To compose and send a message, use the SEND command, from any command level.

Command format:

SEND (MESSAGE)

From top and read levels, the SEND command prompts you for the required information, such as the "To" list, the "cc" list and the subject. (The "cc" list and the subject can be blank.) It then prompts you for the text of the message. When you have completed the text of the message, type CTRL/Z, which will cause the message to be sent immediately.

If, at some point while you are typing the text of the message, you realize that you have made a mistake in the header or text, you can easily correct it. Press the ESC key. This puts you at send level, which prompts with "MS Send>>". You can use send-level commands to alter the current draft of the message.

From send level, the SEND command causes the message you have just prepared to be sent immediately.

#### SEND-LEVEL COMMANDS

BLANK  
Clears the video terminal screen.

CC  
Allows you to add to the list of people receiving "carbon copies" of the message. Refer to the description of the SET DEFAULT CC-LIST command in Section 6.3 for related information.

| DAYTIME  
| Displays the current date and time.

## SENDING MESSAGES

ADDRESS-LIST  
DEFINE ALIAS  
HEADER-ITEM  
Allows you to create address lists, alias names for users, or new message-header items. Refer to Chapter 6 for descriptions.

ALL  
CC  
DISPLAY SUBJECT  
TEXT  
TO  
Shows the part of the message that you specify: the entire message, the recipient lists, the subject line, or the message text. The default value is ALL.

EDIT TEXT  
Sends your message text to your default text editor, for example, TV, SOS, or EDIT. You can then use any of the editor commands to modify your message. After exiting from the editor, you are returned to send level.

### NOTE

If you periodically copy your files to disk while using an editor, you may need to give the command: INSERT FILE MSG.TMP to retrieve the message text after returning to send level.

On TOPS-10 systems, the default editor is TECO unless you created a logical name EDITOR: that points to another editor.

On TOPS-20 systems, the default editor is the same one that is invoked when you give the EDIT or CREATE operating system command. Refer to the TOPS-20 Commands Reference Manual for details on default editors.

ALL  
CC  
HEADER-ITEM keyword  
ERASE REPLY-INFORMATION  
SUBJECT  
TEXT  
TO

Erases the part of the message that you specify:

- o the entire message
- o the recipient lists
- o any particular message header item that you established with the DEFINE command
- o reply-related header information such as the "References" and "In-reply-to" fields (applicable if you entered send level by way of REPLY)
- o the subject line
- o the message text

To delete individual names from the "To" or "cc" list, use the REMOVE command instead.

## SENDING MESSAGES

### EXIT

Ends your DECmail/MS session; returns you to operating system command level or logs you off the system. Refer to Section 7.1 for details on the EXIT command.

### HELP topic

Provides short explanations of various DECmail/MS commands and functions. Refer to the full description of the HELP command in Section 4.1 for the list of topics you can specify with the HELP command.

### INCLUDE keyword

Incorporates optional or required user-defined header items in the header portion of the message. Refer to the description of the DEFINE HEADER-ITEM command in Section 6.1 for details.

### INSERT FILE filespec

MESSAGE message sequence

Appends a file or messages to the message you are preparing. The default directory is the one you specified with the SET DEFAULT DIRECTORY command. The INSERT command is useful for sending reports and other lengthy material that you may have created with one of the system text editors.

### PUSH

Puts your terminal at operating system command level. Refer to the full description of the PUSH command in Section 7.5.

### QUIT

Returns you to the previous DECmail/MS command level. Refer to the full description of the QUIT command in Section 7.2.

### REMOVE username(s)

Erases addresses from either the "To" or "cc" list, depending upon the list in which the addresses appear. To delete the entire "To" or "cc" list, use the ERASE command instead.

### RETURN-RECEIPT-REQUESTED

Requests recipients to acknowledge the message before reading it. The command prompts you for the address(es) where the acknowledgement is to be sent:

```
MS send>>RETURN-RECEIPT-REQUESTED
Return-receipt-requested-to:TUCKER
```

If you specify a period (.), the acknowledgement is returned to your own address.

When recipients try to read the message, they are prompted as follows:

```
MS>READ
N 108 6-Dec TUCKER@GREEN |Final Plan (238 chars)
Sender of message 108 has requested return receipt.
Send it ? YES
Processing mail...
Mail queued for delivery by MX
```

## SENDING MESSAGES

After a YES response, the message is displayed, and an acknowledgement is returned to the sender:

```
Message 109 (394 chars), received Friday, December 6, 1985 15:29-EST
Sender: MEYERS
Date: 6 Dec 1985 1529-EST
From: MEYERS@GREEN
To: TUCKER@GREEN
Subject: Re: Final Plan
References: Message from <TUCKER@GREEN> of 6-Dec-85 1529-EST
In-reply-to: <"MS11(2506)+GLXLIB5(0)" 12165016134.225.542.65609 at GREEN>
```

This is a RETURN RECEIPT for your message.

=====

A NO response displays the message without returning a receipt.

### SAVE DRAFT filespec or carriage-return

Stores the draft you are working on in the specified file. On TOPS-10 systems, the default file extension is .DRF. On TOPS-20 systems, the default file type is .DRAFT, and the default directory is the one specified in the SET DEFAULT DIRECTORY command. The draft includes the "To" and "cc" lists, the subject, and the text of the message. You can later issue the RETRIEVE DRAFT command to pick up where you left off. (Refer to Section 3.1.1 for a discussion of the RETRIEVE DRAFT command.)

The SAVE DRAFT command leaves you at send level. If you wish to send the draft as is, give the SEND command (and the draft is still saved in the file you specified). If you wish to leave send level without sending the draft right away, give the QUIT command.

Note that, if you give a carriage-return instead of a filespec, the DECmail/MS system gives you a message and returns you to send level without having stored the draft anywhere. This gives you a last-minute chance to change your mind about saving the draft for later. You can then continue composing the message.

### NOTE

If you specify the name of an existing file, its contents are erased and replaced with your draft.

### SAVE OUTGOING-MESSAGES filespec or carriage-return

Stores copies of messages that you send. Refer to Section 5.3 for details.

### SEND

Sends your message and returns you to the previous DECmail/MS command level.

### SET parameter

Gives you control over many DECmail/MS operations. Refer to the full description of the SET command in Section 6.3 for the list of parameters you can specify.

### SHOW parameter

Displays a variety of information about the DECmail/MS environment. Refer to the full description of the SHOW command in Section 4.4 for the list of parameters that you can specify.

### SUBJECT

Allows you to retype the subject line of the message.

## SENDING MESSAGES

**TAKE filespec**  
Executes a file of DECmail/MS commands. Refer to the full description of the TAKE command in Section 6.4.

**TEXT**  
Returns you to text mode so that you can continue composing the message. Text mode is further described below.

**TO**  
Allows you to add to the list of recipients for the message.

**TYPE message sequence**  
Displays the specified messages on your terminal. Refer to the full description of the TYPE command in Section 2.2.

**VERBOSE-TYPE message sequence**  
Displays the specified messages on your terminal. Refer to the full description of the VERBOSE-TYPE command in Section 2.2.

If you are at send level and decide that you do not want to send the message, use the QUIT command, which returns you to the previous level.

After giving a send-level command, you can return to DECmail/MS text mode by issuing the TEXT command to add text to the draft of the message. Or you can give the SEND command to send the completed message.

In DECmail/MS text mode, you can manipulate lines of text by pressing the DELETE key or issuing one of several control characters:

|        |                                 |
|--------|---------------------------------|
| DELETE | Deletes the previous character. |
| CTRL/W | Deletes the previous word.      |
| CTRL/U | Deletes the current line.       |
| CTRL/R | Redisplays the current line.    |

Note that you can delete across line boundaries. That is, you can continue deleting lines, characters, and words until you have erased the entire message.

The following characters allow you to manipulate the entire message when you are in DECmail/MS text mode:

|        |                                                                                                                                                                                                                                                                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CTRL/B | Inserts a file in the message you are preparing. This commonly used control key is useful for sending reports and other lengthy material that you have previously prepared with a system text editor. The system prompts you for the name of the file. Note that the default directory for the file is based on the SET DEFAULT DIRECTORY command setting. |
| CTRL/K | Redisplays the entire message text.                                                                                                                                                                                                                                                                                                                        |
| ESC    | Enters send-level command mode.                                                                                                                                                                                                                                                                                                                            |
| CTRL/E | Enters your default text editor.                                                                                                                                                                                                                                                                                                                           |
| CTRL/Z | Sends the message.                                                                                                                                                                                                                                                                                                                                         |

## SENDING MESSAGES

### Related Commands

The following commands are related to SEND. Refer to Section 6.3 for information on them.

SET AUTO-FILL

SET CLOSING-TEXT

### 3.1.1 Continuing Work on an Old Draft

While at send-command level, you can store the unfinished draft of a message you are composing by issuing the SAVE DRAFT command. The RETRIEVE DRAFT command, available at top and read levels, fetches the message when you are ready for it.

Command format:

MS>RETRIEVE DRAFT (FROM FILE) filespec

or

MS READ>>RETRIEVE DRAFT (FROM FILE) filespec

where:

filespec specifies the file that contains the draft. The file specification is the same one that you used for the SAVE DRAFT command. The default directory for the file is based on the SET DEFAULT DIRECTORY command setting.

This command retrieves the draft, displays the draft on your terminal, and leaves you at send level. You can then give any of the send-level commands to manipulate the draft; most commonly, you would give the TEXT command to add message text to the draft.

### 3.1.2 Editing and Resending a Message

After sending a message, you may realize that you forgot to include someone in the address lists. Or you may want to modify a message and send the new version to another list of addressees. In these and similar situations, you can issue the RETRIEVE LAST-MESSAGE command to fetch a copy of the last message you sent in the current DECmail/MS session, so that you can edit and resend it.

Command format:

MS>RETRIEVE LAST-MESSAGE (AND ENTER SEND LEVEL)

or

MS READ>>RETRIEVE LAST-MESSAGE (AND ENTER SEND LEVEL)

This command, available at top and read levels, displays the message and puts you into send level. You can then use any send-level command to add or delete users in the address lists, to edit the text of the message, and then to send the message again.

## SENDING MESSAGES

### NOTE

This command does NOT retract mail; that is, if you have sent a message to someone and then changed your mind, this command does not remove the message from the recipient's mailbox. Once a message has been sent, it has been sent. This command simply retrieves the draft of the message so that you need not type it in again.

### 3.2 ANSWERING MAIL

To reply to messages that other users send you, use the REPLY command.

REPLY command format:

MS>REPLY (MESSAGES) message sequence

or

MS READ>>REPLY (TO) ALL  
SENDER-ONLY

where:

- o ALL sends the reply to the sender and to everyone on the recipient lists.
- o SENDER-ONLY sends the reply only to the sender. This is the default action.
- o Message sequence specifies the message(s) to be answered.

At read level, it is assumed that you wish to reply to the current message. This is also true at top level if you do not specify a message sequence.

When you use this command at top level, the DECmail/MS system prompts you as follows:

Reply message number n to:

where:

n indicates one of the messages in the message sequence you specified. You can respond with ALL or SENDER-ONLY.

REPLY works just like the SEND command; except that, since the DECmail/MS system knows whom to send the message to, it does not ask for the "To" or "cc" list. The DECmail/MS system determines from the message being answered who the sender was, and thus whom the reply should go to, so that you need not type in the name of the recipient. Likewise, if you choose to send replies to people who received copies of the message, the DECmail/MS system can easily determine the addresses. In addition, the DECmail/MS system does not prompt you for the subject of the message. It takes the subject line from the message you are answering.

## SENDING MESSAGES

### Related Commands

The following commands are related to REPLY. Refer to Section 6.3 for information on these commands.

```
SET DEFAULT REPLY-TO-ALL
SET DEFAULT REPLY-TO-SENDER-ONLY
SET [NO] INCLUDE-ME-IN-REPLIES
SET [NO] REPLY-TO
```

### 3.3 FORWARDING MAIL

To send copies of mail you receive, issue the FORWARD command from top or read level.

#### FORWARD

Command format:

```
MS>FORWARD (MESSAGES) message sequence
 or
```

```
| MS READ>>FORWARD (MESSAGES) message sequence
```

where:

message sequence specifies the message(s) to be forwarded.

After you issue the command, the DECmail/MS system prompts you for the "To" and "cc" lists. It does not prompt you for the subject line of the message, however, but takes this line from the last forwarded message in the sequence you specified.

So that you can add your own comments about the messages, the DECmail/MS system prompts you for text, which is inserted in front of the package. If, while at text level, you type ESC to get to send level, and later issue the TEXT command to continue the text you want to insert, everything you type after issuing the TEXT command appears after the messages you are forwarding. This is useful if you want to add text after as well as before the forwarded messages.

## SENDING MESSAGES

### 3.4 SENDING NETWORK MAIL

#### NOTE

Section 3.4 and its subsections are applicable only if DECmail/MS network software is installed on your system.

The DECmail/MS system handles two kinds of mail: local mail, which goes to and from users of the same computer, and network mail, which goes to and from users of different (remote) computers. Ordinarily, the only difference that is important to you is that, when you send mail to remote users, you must identify the computer that they use. Add "@hostname" to their usernames, where "hostname" is the name of the computer they use. For example:

```
MS>SEND
To: Marotta@KL2137
```

When you send mail, it is not delivered immediately but is queued for later transmission ("Mail queued for delivery by MX"). Within a short period of time the system will transmit this mail, provided the destination system is up and receiving mail. Otherwise, it remains posted for up to fourteen days awaiting delivery.

Section 1.3 discusses network addresses in detail. Note that mail within a TOPS-20 computer cluster is considered to be local, so you do not need to specify a hostname. Your system manager will know whether or not your system is part of a cluster.

#### 3.4.1 Sending DECnet Mail

When you send a message, the DECmail/MS system creates the following file in your directory:

```
MSnnnn.MX
```

where:

nnnn is a four-digit file identifier.

The DECmail/MS system places your message in the file. A copy of this file is transmitted to the destination hosts and is copied as many times as necessary for the number of recipients. After a successful send, the file is deleted from your directory. But if there are problems during transmission, this file is renamed to:

```
MSnnnn.RPR
```

## SENDING MESSAGES

You can then correct the message by using the REPAIR command. In addition, the DECmail/MS system sends you mail when one of your DECnet messages is undeliverable. The message you receive looks something like this:

```
Message 149 (308 chars), received Monday, February 10, 1986 16:06-EST
Sender: POSTMASTER
Date: 10-Feb-86 16:06:01-EST
From: Postmaster <POSTMASTER@GOLD>
To: TUCKER
Subject: Undeliverable Mail
```

```
MX1(124) was unable to deliver some (or all) of the mail contained in the
file POBOX:[TUCKER]MS7007.RPR because:
```

```
?MX %MAIL-E-NOSUCHUSR, no such user CPERLMAN at node GREEN
```

```
You may use the command "REPAIR 7007" to repair the message.
```

The following section describes how to correct messages.

### 3.4.2 Correcting Undeliverable DECnet Mail

Messages that you send across computer networks are returned to you for correction if they contain wrong addresses: an intended recipient may not have an account on the destination host, or the hostname that you specified may have been unrecognizable. To correct the message, issue the REPAIR command from top or read level.

Command format:

```
MS>REPAIR (UNDELIVERABLE MAIL IN .RPR FILE) n
```

or

```
MS READ>>REPAIR (UNDELIVERABLE MAIL IN .RPR FILE) n
```

where:

```
n is the four-digit file identifier from the .RPR file. The
Postmaster message explains the problem and gives the full name
of the file. If the message was sent to an address list, all
other users received copies of the message.
```

Once you have successfully identified a "dead letter" to the DECmail/MS system, the message is displayed on your terminal, and you are placed at send level. You can then use any of the send-level commands to correct the problem with the message and try to send it again. At the end of a repair session, the .RPR file is deleted from your directory.

Repaired messages are resent to all recipients, with the following line inserted at the beginning of the text:

```
[THIS MESSAGE HAS BEEN REMAILED WITH A CORRECTED DISTRIBUTION LIST]
```

## CHAPTER 4

### OBTAINING INFORMATION

Chapter 4 presents the various commands you can use to get miscellaneous information on the DECmail/MS system, your message file, and the parameters in effect for your job.

#### 4.1 GETTING HELP

The DECmail/MS system can give you information on any top-level command, as well as on a variety of DECmail/MS features. To get the assistance you need, use the HELP command at top, read, or send level. This command types the information you request on your terminal. For the list of HELP command topics, type HELP ? as follows:

MS>HELP ? confirm with carriage return  
or one of the following:

|            |                  |          |                  |
|------------|------------------|----------|------------------|
| Bad-format | Blank            | Check    | Command-levels   |
| Copy       | Create-init-file | Define   | Delete           |
| Directory  | Exit             | Expunge  | File             |
| Flag       | Forward          | Get      | Headers          |
| Init-file  | Introduction     | Mark     | Message-sequence |
| Move       | Net-mail         | Next     | Novice           |
| Print      | Push             | Quit     | Read             |
| Repair     | Reply            | Retrieve | RFC822           |
| Save       | Send             | Set      | Show             |
| Skim       | System-messages  | Take     | Type             |
| Undelete   | Unflag           | Unmark   | Verbose-type     |
| Version    | Vocabulary       |          |                  |

MS>HELP

To get help with one of these topics, type HELP followed by the name of the topic.

#### 4.2 CHECKING FOR NEW MAIL

The DECmail/MS system periodically checks the current message file to see if any new messages have arrived. Every time the DECmail/MS system updates your message file (because you have deleted a message, for example), and every time it returns to the top-level prompt from some other level, it makes this check. If new messages have arrived, the DECmail/MS system notifies you by displaying a one-line summary of each new message.

To force the DECmail/MS system to check immediately for new messages, give the CHECK command at top level. If new messages have arrived, the DECmail/MS system displays the new state of the message file, along with a one-line summary of each new message.

## OBTAINING INFORMATION

### 4.3 OBTAINING SUMMARIES OF MESSAGES

| The HEADERS and DIRECTORY commands provide an index to the messages in  
| a mail file. These commands have the same function and format.

Command format:

| MS>HEADERS (MESSAGES) message sequence

or

| MS READ>>HEADERS (MESSAGES) message sequence

where:

message sequence specifies the messages for which you want summary information. At read level, the default message sequence is CURRENT. At top level, the default message sequence is NEW.

These commands, available from both top and read levels, give you a one-line summary of each message specified. The line looks something like this:

NFAD 1 12-Jul GUINEAU@OFFICE-3 |This Monday's meeting (549 chars)

- o The letters at the beginning of the line are called the message flags. Each letter has a meaning, and appears only when it applies to the specified message. The letters' meanings are:

- N - the message is new; that is, you have not seen it yet. It has not been specified in a READ, TYPE or VERBOSE-TYPE command. The N also appears for messages that were specified in an UNMARK command.
- F - the message is flagged; it was specified in a FLAG command.
- A - the message has been answered; it was specified in a REPLY command.
- D - the message is deleted; it was specified in a DELETE or MOVE command.

- o The next column is the number assigned to the message. Every message in the file has a unique number, determined by its relative position in the file. You can specify this number for the message sequence argument for DECmail/MS commands. Note that message numbers change when a file is updated, for example, when messages are deleted and expunged.

- o The next column is the date of the message.

- o Next is the name of the user who sent the message, in this case, GUINEAU@OFFICE-3. If the user's name is so long that it would overrun its allotted area, it is truncated.

If the message was sent by you, the DECmail/MS system displays the "To" field of the message. For example:

NFAD 1 12-Jul To: GUINEAU@OFFICE-3 |This Monday's meeting (549 chars)

## OBTAINING INFORMATION

This situation reflects the fact that you are saving your outgoing messages in your mail file, or that you explicitly sent a copy to yourself. Ordinarily, the "from" field is displayed in the third column.

- o The next column, beginning at the vertical bar (|) character, is the subject of the message. The subject is also truncated when necessary.

If the message was sent with a REPLY command, the subject field begins with "Re:".

- o And last, in parentheses, is the length of the message, in characters.

### Related Commands

The following commands are related to HEADERS and DIRECTORY. Refer to the table of commands preceding Chapter 2 for information on these commands.

SET SUMMARY-PERSONAL-NAME-ONLY

SKIM

#### 4.3.1 Scanning a Message File

With the SKIM command, you can scan message summaries and stop to perform some action at the desired messages. SKIM combines the features of HEADERS and READ. It executes the HEADERS command then leaves your terminal at the equivalent of read level after each message summary. At this level, you can then issue a command to immediately act upon the message.

Command format:

MS>SKIM (MESSAGES) message sequence

or

MS READ>>SKIM (MESSAGES) message sequence

where:

message sequence specifies the messages you want to scan. At read level, the current message is the default.

## OBTAINING INFORMATION

This example shows how you might skim a message file and act upon some of the messages you encounter:

```
MS>SKIM 15:20 <RET>
 15 28-May David D'Antonio |Re: FINAL review of -20 (490 chars)
MS skim>>DELETE <RET>
MS skim>> <RET>
 A 16 29-May MEYERS@KL2137 |Re: FINAL review of -20 (431 chars)
MS skim>>MOVE 20.TXT
MS skim>> <RET>
 17 30-May CPERLMAN@KL2102 |[GETTENS at KL2137: FYI (10744 chars)
MS skim>>DELETE <RET>
MS skim>> <RET>
 A 18 3-Jun GRANT@MARKET |Manual Review (285 chars)
MS skim>>TYPE <RET>
Message 18 (285 chars), received Monday, June 3, 1985 06:57-EDT
Sender: GRANT
Date: 3 Jun 1985 0657-EDT
From: GRANT@MARKET
To: tucker@MARKET
Subject: Manual Review
```

Can we get together today? I have some minor comments, nothing very serious at all.

```
=====
MS skim>> <RET>
 19 3-Jun GRANT@MARKET |Re: Manual Review (395 chars)
MS skim>>TYPE <RET>
Message 19 (395 chars), received Monday, June 3, 1985 10:59-EDT
Sender: GRANT@MARKET
Date: 3 Jun 1985 1054-EDT
From: GRANT@MARKET
To: Brenda
Subject: Re: Manual Review
References: Message from Brenda <TUCKER@KL2102> of 3-Jun-85 1012-EDT
In-reply-to: <"MS11(2407)+GLXLIB5(0)" 12116188646.100.542.4931 at KL2102>
```

ok, 1:30

```

MS skim>> <RET>
 20 5-Jun CAISSIE at KL2137 |SPRING CLEAN UP DAY (874 chars)
MS skim>> <RET>
MS>
```

The first command specifies that messages 15 through 20 are to be skimmed. Message 15 is deleted; message 16 is moved to the file 20.TXT; message 17 is deleted; messages 18 and 19 are displayed; and message 20 is simply summarized. The HEADERS command, below, shows that messages 15, 16, and 17 were deleted. This is indicated by the D in the left margin.

```
MS>HEADERS 15:20 <RET>
 D 15 28-May David D'Antonio |Re: FINAL review of -20 (490 chars)
 AD 16 29-May MEYERS@KL2137 |Re: FINAL review of -20 (431 chars)
 D 17 30-May CPERLMAN@KL2102 |[GETTENS at KL2137: FYI (10744 chars)
 A 18 3-Jun GRANT@MARKET |Manual Review (285 chars)
 19 3-Jun GRANT@MARKET |Re: Manual Review (395 chars)
 20 5-Jun CAISSIE@KL2137 |SPRING CLEAN UP DAY (874 chars)
MS>
```

You can issue SKIM and READ commands while at skim-command level to retrieve additional message sequences. The prompt shows your level of recursion [SKIM (1)>>]. For further information on this topic, refer to the description of the READ read-level command in Section 2.1.

## OBTAINING INFORMATION

### 4.4 DISPLAYING SYSTEM AND USER INFORMATION

| This section describes the information you can obtain with the SHOW  
| and DAYTIME commands. These commands are available from all command  
| levels.

#### SHOW Commands

##### SHOW ADDRESS-LISTS

Displays all currently defined address lists that you or the system manager may have established with the DEFINE ADDRESS-LIST command.

##### SHOW ALIASES

Displays all currently defined aliases that you or the system manager may have established with the DEFINE ALIAS command.

##### SHOW DAYTIME

| Displays the current date and time. Same as the DAYTIME command.

##### SHOW DEFAULTS

Shows the defaults (assumptions that the DECmail/MS system makes) that are currently in effect. For example:

```
MS>SHOW (INFORMATION ABOUT) DEFAULTS
 set default directory (to) connected-directory
 set default protection (for created files) 77777
 set default reply-to-sender-only
 set no text-scroll-region
 set personal-name Nelda F. Harris
 set auto-expunge (on) exit-command-only
 save-outgoing-messages (in file) PS:<HARRIS>MAIL.TXT.1
```

You can use the SET command to change most of the defaults displayed by the SHOW command.

##### SHOW HEADER-ITEMS (DEFINED BY USER)

Displays all currently defined header items and their types (optional, predefined, or required); and, for predefined header items, displays the currently defined value. You define header items with the DEFINE HEADER-ITEM command.

##### SHOW STATUS (OF CURRENT MESSAGE FILE)

Shows you the name and status of the current message file. This includes:

- o the filespec for the current message file.
- o the date and time the file was last read (TOPS-20 systems only).
- o the number of messages in the file.
- o the number of new messages in the file.
- o the size of the file in characters and disk blocks for TOPS-10 systems; each block contains 640 characters.
- o the size of the file in characters and disk pages for TOPS-20 systems; each page contains 2560 characters.
- o the number of deleted (but not yet expunged) messages.

## OBTAINING INFORMATION

- o a list of numbers for flagged messages (those previously specified in a FLAG command).
- o the current message number.

For example, on a TOPS-20 system:

| MS>SHOW STATUS

| Current message file is PUBLIC:<TUCKER>MAIL.TXT.1  
| Last read: Wednesday, November 20, 1985 10:17-EST.  
| 94 messages (1 new) (141468 characters), in 56 disk pages.  
| (You have 2 messages deleted.)  
| Messages 89:90 flagged.  
| Currently at message 1.

| Most of this information is displayed when you start up the  
| DECmail/MS system, unless the SET NO TYPE-INITIAL-SUMMARY command  
| is in effect.

| SHOW VERSION

| Displays the version of the DECmail/MS system currently running,  
| and a list of optional features that are supported by this  
| version (such as network mail).

| DAYTIME Command

| DAYTIME

| Displays the current date and time. Same as the SHOW DAYTIME  
| command.

CHAPTER 5  
MANAGING MESSAGE FILES

Chapter 5 discusses the various ways you can manipulate message files as well as the individual messages contained within them. It describes moving messages in and out of files and moving entire mail files in and out of your range of influence.

5.1 MOVING MESSAGES TO OTHER FILES

You can move a message to a new or existing file and either retain or delete the original copy. You might want to move messages in order to collect a set of related messages in one place. The commands that allow you to move messages are COPY, MOVE, and FILE.

- o The COPY command, available from both top and read levels, places a copy of a message into a different file.

Command format:

MS>COPY (MESSAGES) message sequence

or

MS READ>>COPY (INTO FILE) filespec

where:

- filespec is the name of the file in which to place the message. From top level, the DECmail/MS system prompts you for the filespec after you issue the command. The default file type (or file extension) is .TXT. The message is then appended to the specified file; any existing contents of this file are preserved. If the file does not exist, it is created.
- message sequence indicates the messages you want to copy. At read level, it is assumed that you want to copy the current message.

Example

```
MS>COPY (MESSAGE SEQUENCE) 1
 Into file: NEW.TXT
 Copied: 1
```

## MANAGING MESSAGE FILES

- o The MOVE command, available from both top and read levels, moves a message into another file and deletes the original. It works exactly as if you had used the COPY command to copy the message into the other file, and then used the DELETE command to delete the original copy.

The MOVE and COPY command formats are identical.

- o The FILE command is a combination of the MOVE and COPY commands. It allows you to copy a number of messages (at top level) or the current message (at read level) into another file, and to optionally delete the original message(s). After copying the message(s) into the specified file, the DECmail/MS system asks whether you wish to delete the original(s). You reply either YES or NO; NO is the default and is assumed if you give no reply.

### Example

```
MS>FILE (MESSAGES) 1
 Into file: NEW.TXT
 Filed: 1
 Delete from current message file the message(s) just filed? YES
```

Use the GET command to examine and manipulate the contents of the message files you create with the COPY, MOVE, and FILE commands.

### Related Commands

The following commands are related to COPY, MOVE, and FILE.

```
GET
SET DEFAULT DIRECTORY
SET DEFAULT PROTECTION
```

## 5.2 RETRIEVING MESSAGES

There are many ways to retrieve messages. For example, Chapter 3 discusses the use of the RETRIEVE and REPAIR commands. Also, with the message sequence arguments, you can select messages in a seemingly infinite variety of ways. This section describes how to retrieve an entire message file. Once you have accessed the desired file, you can then use any top-level command to manipulate the messages contained within it.

To retrieve a message file, use the GET command from top level.

Command format:

```
MS>GET (MESSAGES FROM FILE) filespec
```

## MANAGING MESSAGE FILES

where:

filespec is the designation for the message file you want to retrieve. The default file extension is .TXT. The default filespec is your mail file. The default directory is your logged-in directory (TOPS-10) or your directory on POBOX: (TOPS-20), regardless of the SET DEFAULT DIRECTORY command setting.

The GET command causes the DECmail/MS system to read in a new message file. Once the DECmail/MS system reads the file, it types a couple of lines of status information about the file, for example:

```
MS>GET <BROWN>NEW.TXT
Last read: 11-Apr-82 21:52. 14 messages, 4 pages.
Messages 1:2, 10 flagged.
```

This file is now considered to be the current message file. To return to your mail file, type:

```
MS>GET
```

### Related Commands

The following commands are related to GET.

```
COPY
FILE
MOVE
SAVE OUTGOING-MESSAGES
SET DEFAULT DIRECTORY
SYSTEM-MESSAGES
```

### 5.3 SAVING OUTGOING MAIL

To keep a record of all messages you send, give the SAVE OUTGOING-MESSAGES command from top or send level.

Command format:

```
MS>SAVE OUTGOING-MESSAGES (IN FILE) filespec or carriage-return
```

or

```
MS SEND>>SAVE OUTGOING-MESSAGES (IN FILE) filespec or carriage-return
```

where:

- o filespec is the name of the file that will contain the messages.
- o carriage-return indicates that you want to erase the previous setting for this command; outgoing messages are no longer saved.

## MANAGING MESSAGE FILES

Once you give this command, every message you send is copied into the file you named. You could give MAIL.TXT as the filespec, which would cause all outgoing mail to go to your mail file. Then, all your incoming and outgoing mail would be collected in one place. (The HEADERS command highlights the messages you sent so that you are not confused by having the two types of messages in one file.) Saving incoming and outgoing mail in one file provides a handy log of message transactions. For example, the output from the following HEADERS command shows that a message was sent from Tucker to Tamburri on April 3rd; Tamburri replied to this message on April 5th; and so forth.

```
MS>HEADERS (MESSAGES) ALL
 1 4-Feb COTE@KL2102 |mail system improvements (1579 chars)
 2 15-Mar To: MURDY@KL2102 |test (182 chars)
 3 23-Mar To: tucker@KL2102 | (169 chars)
 4 23-Mar To: murdy@KL2102 |test (210 chars)
 5 3-Apr To: TAMBURRI@KL21 |INFO BATCH (294 chars)
 6 5-Apr TAMBURRI@KL2102 |Re: INFO BATCH (851 chars)
 7 6-Apr To: TAMBURRI@KL21 |Re: INFO BATCH (367 chars)
 8 8-Apr TAMBURRI@KL2102 |Re: INFO BATCH (361 chars)
```

You could read these messages to reacquaint yourself with the correspondence:

```
MS>READ SUBJECT INFO BATCH
```

If you choose to store your outgoing messages in a separate message file, you would issue the GET command to examine the contents of this file.

SAVE OUTGOING-MESSAGES is most commonly placed in an initialization file, rather than repeatedly typed at the terminal. (Refer to Section 6.4.1 for information on initialization files.)

The SAVE OUTGOING-MESSAGES command saves all messages that you send; however, the SET INCLUDE-ME-IN-REPLIES command, described in Section 6.3, saves only the messages that you send with a REPLY command.

### 5.4 DISCARDING MESSAGES

To delete messages from the current message file, give the DELETE command from either top or read level, as follows:

```
MS>DELETE (MESSAGES) message sequence
```

or

```
MS READ>>DELETE (MESSAGES) message sequence
```

where:

message sequence indicates the messages you want to delete. The current message is the default.

Messages you delete do not disappear immediately, but are marked as deleted. (The HEADERS and DIRECTORY commands show a "D" in the left margin for these messages.) They remain in your file until you give the EXPUNGE command or exit from the mail session. (See Chapter 7.) If you accidentally delete a message, you can use the UNDELETE command to get it back, unless an expunge has occurred. Once you have expunged a message, you cannot get it back.

The DELETE and UNDELETE command formats are identical.

## MANAGING MESSAGE FILES

The EXPUNGE command, available from top level, does not require any arguments. It erases all messages that were specified in a DELETE command and renumbers the remaining messages. The SET AUTO-EXPUNGE command determines when your messages are automatically expunged. Refer to the description of the SET AUTO-EXPUNGE command in Section 6.3 for details.

### 5.5 PRINTING MESSAGES ON THE LINE PRINTER

To produce a line printer listing of messages, give the PRINT command from top or read level.

Command format:

```
MS>PRINT (MESSAGES) message sequence
```

or

```
MS READ>>PRINT (ON LINE-PRINTER)
```

where:

message sequence specifies the messages you want to print. From read level, it is assumed that you want to print the current message. This is also true at top level if you do not specify a message sequence.

Related Command

The SET SUMMARY-ON-PRINTER-OUTPUT command is related to the PRINT command. It is described in detail in Section 6.3.

### 5.6 FLAGGING MESSAGES

The FLAG command, available from both top and read levels, allows you to flag messages for future reference. You may wish, for instance, to read all your mail quickly and flag the important messages, so that you can later type READ FLAGGED to reread all the flagged messages.

An "F" appears in the left margin of the HEADERS and DIRECTORY command output for all flagged messages. Also, when you start up the mail system, the message numbers for flagged messages are displayed.

Command format:

```
MS>FLAG (MESSAGES) message sequence
```

or

```
MS READ>>FLAG (MESSAGES) message sequence
```

where:

message sequence indicates the messages you want to flag. The current message is the default.

The UNFLAG command turns off the flag on a message.



CHAPTER 6  
TAILORING THE DECmail/MS ENVIRONMENT

Chapter 6 discusses how you can customize the DECmail/MS system to suit your particular needs and work habits.

6.1 DEFINING MESSAGE HEADER ITEMS

The message header is that portion of the message that appears before the blank line preceding the text. It contains such items as the date, sender, and message recipients. A header item consists of an alphanumeric string which is the name of the header item, a colon, and some text which is the data associated with the header item. The "To" item is an example of a header item which has addresses for its data. The DECmail/MS system has seven predefined header items: Date, To, cc, From, Subject, Reply-to, and In-reply-to. To define your own items, use the DEFINE HEADER-ITEM command from any DECmail/MS command level, as in:

DEFINE HEADER-ITEM name type subtype optional-value

where:

- o name is any alphanumeric string. Note that you must enclose the name in quotes if it contains any of the special characters listed in the description of "username" in Section 1.3.
- o type is OPTIONAL, PREDEFINED, or REQUIRED.
- o subtype is DATE, DATE-AND-TIME, TIME, ADDRESS, TEXT-STRING, or KEYWORD.
- o optional value is the value for a predefined header item, or a list of keywords for keyword header items, separated by commas.

An optional header item is one that you can elect to include in an outgoing message, but is not required. The DECmail/MS system does not prompt you for it; so, to include it, you must use the send-level command INCLUDE.

A predefined header item is one whose data is defined in advance. The DECmail/MS system does not prompt for it, but the predefined header item will be included in all outgoing messages. An example of a predefined header item might be your telephone number or postal address.

## TAILORING THE DECmail/MS ENVIRONMENT

A required header item is one whose data is not supplied in advance, but which you must supply before sending any message. The DECmail/MS system prompts you for these header items every time you send a message. You can give the INCLUDE command to later change a value that you have given for a required item.

You can qualify these header item types with the six subtypes listed above. Note that, when defining a keyword header item, you must supply a list of legal keywords for that header item. Then, at the time you send a message, you must supply one of the applicable keywords to the DECmail/MS system. (See the second example below.) Predefined keyword header items would not make much sense, and thus are not allowed.

Your defined header items are inserted alphabetically just above the Subject: line.

To delete a header item definition, give the command:

```
DEFINE HEADER-ITEM name
```

where:

"name" is the name of the header item. To delete all header item definitions, give the command DEFINE HEADER-ITEM \*.

The SHOW HEADER-ITEMS command displays all your currently defined header items. Also, you can give the ERASE HEADER-ITEM command at send level to erase one of your header items from the current draft.

### NOTE

You should put the DEFINE HEADER-ITEM command in a command file so that the DECmail/MS system will remember your definitions permanently. Refer to Section 6.4 for details.

### EXAMPLES

1. Define your department name so that it is always included in messages you send:

```
MS>DEFINE HEADER-ITEM (NAME) Department (TYPE) PREDEFINED TEXT-STRING Publications
```

Messages that you send will now look something like this:

```
Date: 17-MAY-86 15:33
From: SEN@KL2137
To: ANDERSON@GREEN
cc: PORADA@KL2137
Department: Publications
Subject: Newsletter Ideas
```

2. One possible use for keyword header items is illustrated in the following example:

```
MS>DEFINE HEADER-ITEM Priority REQUIRED KEYWORD urgent,high,medium,low
```

When you send messages, the DECmail/MS system prompts you for one of these keywords.

## TAILORING THE DECmail/MS ENVIRONMENT

3. To optionally specify that responses are required or not required to your messages, give the following command:

```
MS>DEFINE HEADER-ITEM Response OPTIONAL KEYWORD Requested, Not-required
```

To include this optional header item in a message, give the INCLUDE command at send level:

```
MS SEND>>INCLUDE (HEADER-ITEM) Response
Response: Requested
MS SEND>>
```

Messages you send will then look like this:

```
Date: 8 Apr 1986 1446-EST
From: PORADA@KL2102
To: MURDY@KL2102
Response: Requested
Subject: Monthly Meeting
```

### Related Commands

The following command relates to DEFINE HEADER-ITEM.

```
SHOW HEADER-ITEMS
```

## 6.2 ESTABLISHING ALTERNATIVE NAMES FOR ADDRESSES

The following sections describe how to assign new names to standard addresses and how to create named address lists.

### 6.2.1 Defining Alias Names for Users

#### NOTE

You should put the DEFINE ALIAS command, described below, in your DECmail/MS initialization file if you want the DECmail/MS system to remember your definitions permanently. Refer to Section 6.4 for details.

If you frequently send mail to someone with a long or unusual address, or to someone whom you refer to by nickname, you may want to define an alias name for that person. The DEFINE ALIAS command, available from any DECmail/MS command level, allows you to do this.

Command format:

```
DEFINE ALIAS (NAME) alias name (TO BE) long-unwieldy-address
```

where:

- o alias name is any combination of alphanumeric characters. Alias names that include spaces and the following characters must be enclosed in quotes: . - \_ \$
- o long-unwieldy-address is a standard address.

## TAILORING THE DECmail/MS ENVIRONMENT

For example, the following command identifies the name John with the address Purretta@GREEN

```
MS>DEFINE ALIAS John (TO BE) Purretta@GREEN
```

You can give the alias name in any address specification, such as a "To" or "cc" list. The DECmail/MS system converts it to the full address for you. The alias name (John, in the example above) is not inserted into the address.

If you are a system administrator, you may find this command useful in defining mailbox names that refer to subjects. For instance, rather than expecting users to know who maintains a particular program, you could put a command similar to the following in the system initialization file, as described in Section 6.4.1:

```
MS>DEFINE ALIAS editor-bugs Admin@GREEN
```

Users could then send mail to editor-bugs when they encounter problems with the word-processing software.

To delete an alias definition, give the command:

```
DEFINE ALIAS name
*
```

where:

- o "name" specifies the alias definition to be deleted.
- o \* specifies that all definitions are to be deleted.

### 6.2.2 Defining Address Lists

#### NOTE

You should put the `DEFINE ALIAS` and `DEFINE ADDRESS-LIST` commands, described below, in your DECmail/MS initialization file so that the DECmail/MS system will remember your definitions permanently. Refer to Section 6.4 for details.

There are three ways for you to implement address lists:

1. An alias can represent a list of addresses, as in:

```
MS>DEFINE ALIAS Doria (TO BE) WDoria@GREEN, VDoria@GREEN
```

Here, all mail that you send to Doria goes to both addresses.

Section 6.2.1 further describes alias names.

## TAILORING THE DECmail/MS ENVIRONMENT

2. You can also use the DEFINE ADDRESS-LIST command to assign a name to a group of people. This command is identical in format and function to the DEFINE ALIAS command, except that it causes the alias name to appear in the "To" field of the message header. For example, define the following address list:

```
MS>DEFINE ADDRESS-LIST Task-force (TO BE) LCampbell, King, Jones, Dickson
```

Then, if you send mail to "Task-force", the mail received has a "To" field which looks like:

```
To: Task-force: LCampbell, King, Jones, Dickson;
```

You can also create nested address lists (an address list within an address list), as in this example:

```
MS>DEFINE ADDRESS-LIST Dept (TO BE) Production-group, Task-force,...
```

To delete an address list, give the command:

```
DEFINE ADDRESS-LIST name
*
```

where:

- o "name" specifies the address list definition to be deleted.
- o \* specifies that all definitions are to be deleted.

3. You can create a standalone file of addresses with an editor. This is useful when several people need to access an address list. For example, members of a committee may frequently send mail to all other members. Rather than have each person define an address list and update it as the committee changes, all members can access one file.

A sample file of addresses:

```
PRATT,
SANTEE,
MAYO,
DAVIS,
TUCKER@GREEN,
ROSSELL,
WADDINGTON@GOLD
```

Note that a comma follows each address except the last.

To send mail to this kind of address list, type @filespec in response to the TO: and CC: prompts, where "filespec" is the file specification for the address list. An alternative is to include this specification in a DEFINE ADDRESS-LIST command in your init file:

```
DEFINE ADDRESS-LIST Committee @COMM.LST
```

Then, whenever you send mail to "Committee," the DECmail/MS system will access the addresses in COMM.LST.

Related Commands

The following commands relate to DEFINE ALIAS and DEFINE ADDRESS-LIST.

SHOW ALIASES  
 SHOW ADDRESS-LISTS  
 SET BRIEF-ADDRESS-LIST-DISPLAY  
 SET PERSONAL-NAME

6.3 SET COMMANDS - CUSTOMIZING THE DECmail/MS SYSTEM

This section of the manual describes the SET commands. Most of these commands affect the behavior of one or more of the DECmail/MS commands described elsewhere in this manual. Where appropriate, the SET command descriptions refer to these other commands. The many SET commands are listed here alphabetically. You can give these commands from any DECmail/MS command level. You might want to put SET commands in your DECmail/MS initialization file so that the DECmail/MS system will remember your settings permanently. Refer to Section 6.4 for details.

In the following descriptions, the word NO enclosed in square brackets denotes an optional negative version of the command, for example:

SET [NO] VIDEO-MODE

This command indicates that the word NO is optional, and, if specified, reverses the effect of the SET VIDEO-MODE command. Note that you do not type the square brackets.

SET Command Descriptions

ANY-EXIT  
 SET AUTO-EXPUNGE (ON) EXIT-COMMAND-ONLY  
 NEVER

Controls automatic expunging of deleted messages in the current message file. ANY-EXIT causes deleted messages to be expunged when you give the EXIT command, or the QUIT command from top level; EXIT-COMMAND-ONLY expunges messages only when you issue the EXIT command; and NEVER limits expunges to those times when you issue the EXPUNGE command.

Default - EXIT-COMMAND-ONLY

| SET [NO] AUTO-FILL (AT COLUMN) n  
 | When set, automatically inserts carriage-return/line-feeds while  
 | you type in text mode. In composing a message, if you type  
 | beyond the column specified by n, the next space character causes  
 | the beginning of a new line.  
 | Default - SET NO AUTO-FILL

SET [NO] BRIEF-ADDRESS-LIST-DISPLAY  
 When set, causes the contents of address lists to be eliminated from messages that you display. Only the names of the address lists appear in the "To" and "cc" lists. This facilitates reading messages that have been sent to very long address lists. If a message contains a nested address list, only the name of the outermost list is displayed. Refer to Section 6.2.2 for information on address lists.

Default - SET NO BRIEF-ADDRESS-LIST-DISPLAY

## TAILORING THE DECmail/MS ENVIRONMENT

| SET CLOSING-TEXT (TO) text string  
| Lets you specify a single line of text that is automatically  
| added to the end of each message you send.

SET [NO] CONCISE-MODE  
Shortens or eliminates some of the messages that the DECmail/MS system types, such as instructions at the end of the header prompts in a send-level session. You should set this command only if you are an experienced user.  
Default - SET NO CONCISE-MODE

SET DEFAULT CC-LIST address list  
Causes the users named in the address list to receive copies of all your outgoing messages. Refer to Section 6.2.2 for information on defining address lists.

CONNECTED-DIRECTORY  
SET DEFAULT DIRECTORY (TO) directory name  
LOGGED-IN-DIRECTORY  
Sets the default directory for the DECmail/MS session. The exception is that the GET command always defaults to your TOPS-10 logged-in directory or your TOPS-20 directory on POBOX:. The default directory setting is in effect until you reissue the SET DEFAULT DIRECTORY command. That is, if you connect to a different directory without giving another SET DEFAULT DIRECTORY CONNECTED-DIRECTORY command, the default remains as it was on the last setting. Refer to Section 7.5, LEAVING THE DECmail/MS SESSION TEMPORARILY, for a related example. For more information on directories, see the TOPS-20 User's Guide or the TOPS-10 Operating System Commands Manual.  
Default - CONNECTED-DIRECTORY

SET DEFAULT PROTECTION (FOR CREATED FILES) protection code  
Sets the protection code for files you create with such commands as COPY and MOVE. For more information on file protection, see the TOPS-20 User's Guide or TOP-10 Operating System Commands Manual.  
Default - the default for all files in your directory

SET DEFAULT REPLY-TO-ALL  
REPLY-TO-SENDER-ONLY  
Sets the default recipient list for the REPLY command. SET DEFAULT REPLY-TO-SENDER-ONLY causes replies to go to the addressees named in the "Reply-to" field of the message you are answering, or to the sender of the message, if no "Reply-to" field exists. (Refer to the SET REPLY-TO command description for information on the "Reply-to" field.) SET DEFAULT REPLY-TO-ALL causes replies to be sent to all users in the "To" and "cc" lists of the message you are answering.  
Default - REPLY-TO-SENDER-ONLY

| SET EXPERIENCE-LEVEL (TO) EXPERT  
| NOVICE  
| Establishes you as either an expert or novice user. Expert users  
| may use all of the available facilities of the DECmail/MS system.  
| Novice users are limited to the following commands: DELETE,  
| EXIT, EXPUNGE, FILE, HEADERS, HELP, PRINT, READ, SEND, SET,  
| SYSTEM-MESSAGES, UNDELETE. If no argument is specified on the  
| command line, NOVICE is assumed.  
| Default - EXPERT

## TAILORING THE DECmail/MS ENVIRONMENT

### SET [NO] FORCE-DIRECTORY-LOOKUP

Verifies local addresses in the To: and cc: lists and in address list definitions after you press the RETURN key. You immediately receive an error message if an address is invalid.

#### Example:

Your initialization file (see Section 6.4.1) defines a very long address list that rarely changes. To speed processing of this file so you can begin the mail session, turn off the verify feature. In your init file:

```
.
.
.
SET NO FORCE-DIRECTORY-LOOKUP
DEFINE ADDRESS-LIST VERY-LONG-LIST address1,address2,...
SET FORCE-DIRECTORY-LOOKUP
.
.
.
```

The default is SET FORCE-DIRECTORY-LOOKUP.

### SET [NO] INCLUDE-ME-IN-REPLIES

Controls whether you receive copies of your replies to messages. These copies are saved in your mail file. This command has no effect if you have already given the command SET DEFAULT REPLY-TO-SENDER-ONLY. The SAVE-OUTGOING-MESSAGES command saves all messages that you send, including replies.

Default - SET NO INCLUDE-ME-IN-REPLIES

### SET LOGOUT-ON-EXIT

Logs you off the computer when you issue the EXIT command or the QUIT command from top level. This feature is usually employed for users who wish to use only the DECmail/MS system. The system administrator puts the following command in such a user's LOGIN.CMD file:

```
MS SET LOGOUT-ON-EXIT
```

This command causes the users to start a DECmail/MS session immediately upon logging in, and forces them to stay in this mode for the duration of the computer session. This command is for TOPS-20 users only. For more information on LOGIN.CMD, see the TOPS-20 User's Guide.

### SET ONLY-HEADERS-SHOWN (TO) header name, header name,...

Restricts the amount of header information displayed by the READ and TYPE commands. If you give this command, only the specified header items are displayed. For instance, the following command causes only the "To", "Subject", and "From" fields to be shown:

```
SET ONLY-HEADERS-SHOWN to, subject, from
```

SET ONLY-HEADERS-SHOWN is particularly useful when reading messages with large headers. The VERBOSE-TYPE command temporarily overrides the effect of this command and shows the entire message literally. A less restrictive, and somewhat more flexible way of reducing the amount of header information displayed is to use the SET SUPPRESSED-HEADERS command.

## TAILORING THE DECmail/MS ENVIRONMENT

**SET [NO] PERSONAL-NAME (USED IN OUTGOING MAIL) name**  
Causes the DECmail/MS system to add a personal name to the "From" field of your outgoing mail (in addition to your username). Bear in mind that certain special characters, including most punctuation characters, are allowed only within quoted strings (text enclosed by double quotes). For a list of these special characters, refer to the description of "username" in Section 1.3. SET NO PERSONAL-NAME deletes your personal name setting.

**Example:**

User Caissie might use this command as follows:

```
SET PERSONAL-NAME Donna M. Caissie
```

The "From" field of all her outgoing mail would look like this:

```
From: Donna M. Caissie <CAISSIE@KL2102>
```

**SET [NO] REPLY-TO (TO) address list**  
Causes replies to your messages to go to the specified address list rather than to the sender (you) and the recipients of the message. This command causes the following line to be inserted into every message you send:

```
Reply-to: <address list>
```

When the recipient of such a message uses the REPLY command to compose a reply, the reply goes to the addresses specified in the "Reply-to" line.

You might want to use this feature if you send messages for someone else (for example, if you are a secretary) who is responsible for replies. Or, vice-versa, you might want replies to your messages to go to your secretary. Also, you might send messages whose replies would interest a group of people other than the recipients of the messages.

Default - Sender

**SET [NO] SUMMARY-ON-PRINTER-OUTPUT**  
When set, causes the first page of any line printer listing of messages created by the PRINT command to contain a one-line summary of each message listed. This information is the same as that given by the HEADERS and DIRECTORY commands.

Default - SET NO SUMMARY-ON-PRINTER-OUTPUT

**SET [NO] SUMMARY-PERSONAL-NAME-ONLY**  
When set, causes the HEADERS and DIRECTORY commands to display only personal names, rather than the full "From" or "To" field. For messages without personal names, the entire field is displayed. For additional information on personal names, refer to the description of SET PERSONAL-NAME.

Default - SET NO SUMMARY-PERSONAL-NAME-ONLY

**SET [NO] SUPPRESSED-HEADERS (TO BE) header name, header name,...**  
When set, eliminates the named header items from messages you display.

**Example:**

You could use this command to eliminate the message-id line from message displays:

```
SET SUPPRESSED-HEADERS message-id
```

## TAILORING THE DECmail/MS ENVIRONMENT

Then, lines similar to the following no longer appear when you display messages:

```
Message-ID: <"MS11(5116)+GLXLIB5(0)" 12178581754.213.51.31405 at Green>
```

The SET ONLY-HEADERS-SHOWN and VERBOSE-TYPE commands override the effect of this command.

Default - SET NO SUPPRESSED-HEADERS

### SET [NO] TEXT-SCROLL-REGION (TO) n (LINES)

In read mode, scrolls only the text of messages being displayed, while leaving the headers in place. This command applies only to terminals capable of defining scroll regions, such as VT100 and VT200 series terminals. The header area remains on the screen for your easy reference; but, if this area is too long, there will be an annoyingly small number of lines for display of the message text. Therefore, the SET TEXT-SCROLL-REGION command instructs the DECmail/MS system to scroll the text of the message only if the specified number (n) of lines is available in which to scroll the text. If the header area is too big to leave this number of lines available for text, then the header is scrolled as well as the text.

SET NO TEXT-SCROLL-REGION displays messages in the usual manner, that is, with the header area appearing at the top of the first full screen of information, and the message text filling all subsequent screens until the entire message has been displayed.

Default - SET NO TEXT-SCROLL-REGION

### SET [NO] TYPE-INITIAL-SUMMARY

Controls whether the DECmail/MS system prints status information about your mail file when you begin the mail session. The SHOW STATUS command prints much of this same information. Unread messages in the file are indicated by an N in the left margin.

Default - SET TYPE-INITIAL-SUMMARY

### SET [NO] VIDEO MODE

Turns on or off the DECmail/MS system's video display features. Examples of these features are clearing the screen (BLANK command) and setting scroll regions (SET TEXT-SCROLL-REGION command).

SET VIDEO-MODE also forces the DECmail/MS system to refresh its knowledge of your terminal characteristics. Thus, if you issue an operating system command to detach from a job running the DECmail/MS system and later attach to the job on a different type of terminal, you would give the operating system command:

```
TERMINAL terminal type
```

Then, continue the mail session and give the SET VIDEO-MODE command. The DECmail/MS system is able to continue to do its video display properly, because it now knows of your new terminal characteristics.

Default - SET VIDEO-MODE

## TAILORING THE DECmail/MS ENVIRONMENT

### 6.4 USING COMMAND FILES

A command file is a file that contains a group of commands, placed one after another and executed in that order. The DECmail/MS system allows you to create command files that contain almost any DECmail/MS command. At any time, you can issue a command that causes the DECmail/MS system to process one of your command files. In this way, you can change environments or execute procedures whenever you like, without having to repeatedly type the corresponding commands. One type of command file, called an initialization (init) file, is executed automatically when you begin the mail session.

The following sections discuss initialization and ordinary command files.

#### 6.4.1 Initializing the DECmail/MS System

Every time the DECmail/MS system starts up, it executes commands contained in the MS.INI file on TOPS-10 or the MS.INIT file on TOPS-20. By putting such commands as SET and DEFINE into this file, you can make sure that the DECmail/MS system permanently remembers your options. You can create this initialization file either with an editor such as EDIT or TECO, or with the DECmail/MS command CREATE-INIT-FILE, which requires no arguments. On TOPS-20 systems, MS.INIT should go in your directory on the POBOX: disk structure.

The CREATE-INIT-FILE command, available only at top level, causes the DECmail/MS system to enter create-init mode. Instead of prompting with the standard prompt,

```
MS>
```

the DECmail/MS system prompts as follows when you issue the CREATE-INIT-FILE command:

```
MS Create-init>>
```

While in this mode, every command you type goes into the initialization file, with the exception of the HELP and TAKE commands. The HELP command is excluded so that you can get help during your create-init session without cluttering up your init file with HELP commands. The TAKE command is executed on the spot and need not be stored in the file. (Refer to the Note below and to Section 6.4.2 for information on TAKE.) Note that the DECmail/MS system assumes you want the init file commands to be in effect immediately, so it executes each command as it stores the command in the command file.

If during create-init mode you decide you really do not want to create or change your init file, give the QUIT command. Or, when you are finished typing commands and wish to return to normal mode (top level), give the FINISH command.

## TAILORING THE DECmail/MS ENVIRONMENT

### CAUTION

When adding to your existing init file, it is important that you give the following command at some point during your create-init dialogue:

```
TAKE (COMMANDS FROM) filespec
```

where filespec is MS.INI on TOPS-10 and MS.INIT on TOPS-20.

This command incorporates your existing init-file commands in the new command file. If you do not enter this command, the existing init-file commands are erased when you finish the create-init session, and only the new commands remain.

If you update the init file with an editor, there is no need for this use of the TAKE command.

### Example

Create an init file on a TOPS-20 system:

```
MS>CREATE-INIT-FILE (FOR SETTING PERMANENT DEFAULTS)
```

Give commands whose effects you wish to have remembered as permanent defaults (for example, SET PERSONAL-NAME, SET CONCISE-MODE, etc.). Commands which cause actions (READ, HEADERS NEW, etc.) will be executed every time MS starts up. Give the QUIT command to leave this mode without changing anything, or the FINISH command to make your changes permanent.

```
MS Create-init>>TAKE MS.INIT
MS Create-init>>SET PERSONAL-NAME Meryl S. Steele
MS Create-init>>SET SUMMARY-ON-PRINTER-OUTPUT
MS Create-init>>DEFINE ADDRESS-LIST All (TO BE) Managers, Groups
MS Create-init>>FINISH
MS>
```

### SYSTEMWIDE INITIALIZATION FILE

There may be a systemwide initialization file on your system, which contains the defaults, options, and commands specified by your system manager. For example, the file may contain address-list definitions that are useful for many people on the system.

The system init file is called STD:MS.INI on TOPS-10 and SYSTEM:MS.INIT on TOPS-20.

| When you begin a mail session, your own init file is processed after  
| the system init file. If you do not have one, then only the system  
| init file is processed.

## TAILORING THE DECmail/MS ENVIRONMENT

### 6.4.2 Processing Command Files

You may want to change the existing set of DECmail/MS definitions and options. You are not confined to the init file specifications, but can override them by issuing the appropriate commands with new settings. An easy way to change environments, though, is to use a command file.

To create a command file, use any editor on your system, and enter one command per line. For information on editors, refer to the appropriate operating system manual. Command files can be nested; that is, a command file can contain TAKE commands. By nesting command files, you can prevent having to retype commands that another command file contains.

You can insert comments in your command files that do not appear on your terminal. They simply remain in the files, providing you with documentation when you look at the files. You precede these comments with an exclamation point:

```
!This command file is for setting new definitions.

DEFINE ADDRESS-LIST All (TO BE) Writers, Artists, Typists !Setting new address definitions
SET NO VIDEO-MODE
SET SUPPRESSED-HEADERS message-id
SET PERSONAL-NAME Tim Grady
!End of this command file
```

Once you have created a file, issue the TAKE command from any DECmail/MS command level to execute the commands:

TAKE (COMMANDS FROM) filespec

where:

filespec is the specification for the particular command file. The default file type or file extension is .CMD. The default directory is the one specified in the SET DEFAULT DIRECTORY command.

### 6.5 CLEARING THE TERMINAL SCREEN

If you are working on a video terminal and have not previously given a SET NO VIDEO-MODE command, you can clear your screen by issuing the BLANK command from any DECmail/MS command level:

BLANK (SCREEN)

Some people place this command into their init files so that when they begin the mail session, they start with a clear screen.



## CHAPTER 7

### EXITING

Chapter 7 explains how to exit from the various DECmail/MS command levels as well as from the DECmail/MS system itself.

#### 7.1 USING THE EXIT COMMAND

You use the EXIT command to leave your DECmail/MS session and to return to the program that invoked it. This program ordinarily is the monitor on TOPS-10 or the command language processor (EXEC) on TOPS-20. Be aware that, unless you have given an overriding SET AUTO-EXPUNGE command, the EXIT command EXPUNGES those messages for which you have given the DELETE command.

##### TOPS-20

If the SET LOGOUT-ON-EXIT COMMAND is in effect, the EXIT command logs you off the system.

#### 7.2 USING THE QUIT COMMAND

You use the quit command to leave the current command level and return to the level that invoked the current level. At top level, then, the QUIT command functions as the EXIT command. If the SET AUTO-EXPUNGE ANY-EXIT command is in effect, a QUIT command issued from top level expunges your deleted messages.

#### 7.3 ISSUING CTRL/C

CTRL/C causes you to leave the DECmail/MS session abruptly. On TOPS-10 systems, you may have to type CTRL/C twice.

On TOPS-20 systems, if the SET LOGOUT-ON-EXIT command is in effect, CTRL/C has no effect.

#### 7.4 ISSUING CTRL/Z (TOPS-10)

On TOPS-10 systems, CTRL/Z performs the same function as the EXIT command. It works only at command level. For example, you cannot use CTRL/Z to exit from the mail session while in the middle of reading a long message.

## EXITING

### 7.5 LEAVING THE DECmail/MS SESSION TEMPORARILY

To temporarily leave your DECmail/MS session so that you can perform ordinary operating system activities, issue the PUSH command. This command puts your terminal at operating system command level, at which point you can run programs or issue any operating system command. Giving the POP command returns you to your DECmail/MS session.

#### Example

Enter TOPS-20 command level to connect to a different directory. Then, return to the mail session and indicate that the default directory for the rest of the mail session should be your connected directory.

```
MS>PUSH
```

```
TOPS-20 Command processor 6.1(273)
```

```
@CONNECT (TO DIRECTORY) <BROWN.SUB>
```

```
@POP
```

```
MS>SET DEFAULT DIRECTORY CONNECTED-DIRECTORY
```

APPENDIX A  
ERROR INFORMATION

Appendix A describes some of the error messages you might receive during a mail session. Many error messages are self-explanatory and, therefore, are not included here.

On TOPS-10 systems, a general file-operation error may occur. The format of this error message is:

%File Operation Failed: name of error code, number, text

This line, which gives the name of the error, its number, and some text, is followed by a one-line explanation. If you receive one of these messages, you should refer to the appropriate TOPS-10 documentation.

Note that messages preceded by a question mark (?) indicate "fatal" errors; whereas those preceded by a percent sign (%) are warnings.

A.1 ERROR MESSAGES

%Cannot expunge deleted messages - another reader exists

The DECmail/MS system cannot expunge messages while another copy of the mail system has the current message file open. This other copy could be another process in your job, or a process in some other job.

%Cannot expunge deleted messages - mail is arriving

The DECmail/MS system cannot expunge messages at the same time that someone is sending you mail.

?Cannot find mailer flags because: <reason>

Problems were encountered with one of the following files in the <SYSTEM> directory.

DECNET-MAILER.FLAGS  
MAILER.FLAGS  
XMAILR.FLAGS

This file was possibly installed incorrectly. See your system manager.

?Cannot open mailer flags because: <reason>

The explanation for this error is the same as that for "?Cannot find mailer flags."

## ERROR INFORMATION

%Cannot tell whom message is from

You cannot use the REPLY command for this message because the "From" field contains undecipherable data. If the message came from someone on another computer, perhaps the host name is undefined. See your system manager.

%Can't find "To" field in draft

You tried to retrieve a draft from a nonmail file.

%Can't update message bits--another reader exists

More than likely, you are the other reader, and you forgot to issue the POP command before reissuing the MS command.

?Command files nested too deeply, detected in opening <filespec>

You have entered too many nested TAKE commands in this command file. The limit is 15 decimal.

%Duplicate address list purged - <address list>

You have previously given this address list for either the "To" or "cc" list. The most recent specification is not honored.

%Duplicate name purged - <name>

You have previously given this name for either the "To" or "cc" list. The most recent specification is not honored.

?Expunge failed due to insufficient memory

Your job could not acquire enough memory for the expunge.

?Expunge failed--message file busy

Another person is accessing the mail file; therefore, deleted messages will not be expunged.

%Header-item is predefined; use DEFINE command to change

You can issue the INCLUDE command only for optional or required header items. Predefined header items are automatically included in the message.

%Incorrectly formatted header for message <message number>

This error message would more than likely result because the mail was sent from a foreign host system that does not conform to DECmail/MS specifications.

%Keyword header-item cannot be predefined

You cannot predefine a header item in the keyword category. With keyword items, you must be able to choose among options.

%No current mail file

| There is no mail file in your logged-in directory (TOPS-10) or  
| your directory on POBOX: (TOPS-20). The mail file is MAIL.TXT on  
| TOPS-10, and MAIL.TXT.1 on TOPS-20.

## ERROR INFORMATION

%No messages match this specification

You did not specify a message sequence, or there is no message for the sequence you specified.

%No previous sequence exists

You have not specified a message sequence yet.

%There is an overriding "SET ONLY-HEADERS-SHOWN" command in effect

The SET ONLY-HEADERS-SHOWN command takes precedence over the SET SUPPRESSED-HEADERS command.

%There is no previous message draft

You can issue the RETRIEVE LAST-MESSAGE command only for messages that you send during the current DECmail/MS session.

?Too many header items given

You can specify up to 32 items in the SET ONLY-HEADERS-SHOWN command.

### A.2 REPAIRING DAMAGED MESSAGES

Occasionally, a message file gets damaged, either by a bug in the DECmail/MS system, a bug in the computer on which the DECmail/MS system runs, or a hardware problem. If this happens, you will see one of the following DECmail/MS messages.

?File has bad format - message nn has no receive date  
?File has bad format - first message preceded by junk  
?File has bad format - no messages found  
?File has bad format - cannot find start of last message  
DELETE or MOVE last message to correct problem  
?Last message has invalid length field, truncating  
?Any new messages will cause file damage

If you give a HEADERS ALL command, you will most likely see some peculiar looking headers. Usually they have no Subject, From, or Date field, and the length of the message is either zero or ridiculously large.

You can repair almost any kind of damage to a message file by using the appropriate DECmail/MS commands:

- o Make a copy of the damaged file using the COPY command with the ALL keyword. When the DECmail/MS system creates a message file (with either COPY or MOVE), it always writes a correctly formatted file. If the file being copied is damaged, the DECmail/MS system is forced to make some assumptions about its format; but in all cases the new file is correctly formatted.
- o Use the GET command to retrieve the copy you have just made. You should see no error messages, but you may still have some peculiar looking headers.

## ERROR INFORMATION

- o Read the messages with these headers; and, if they contain only system-generated "garbage", you can delete them with the DELETE command. If they contain fragments of real messages, you may want to keep them, rather than lose the fragments.

Once you have made a good copy of the damaged file, you should delete the contents of the damaged file to save space. Return to the damaged file (using the GET command), delete all the messages, and give the EXPUNGE command.

If the damaged file was your mail file, be aware that your mail file is now empty (although you have a good copy of your old mail in another file). If you wish to put the good copy back into your mail file, use the GET command to get the good copy; then use the MOVE command to move all the messages back into your mail file. The file specification of a mail file is MAIL.TXT on TOPS-10 systems and MAIL.TXT.1 on TOPS-20 systems. Be sure to give this file specification completely on the MOVE command line. On a TOPS-20 system, this latter sequence of commands looks like:

```
MS>GET (MESSAGES FROM FILE) GOOD-COPY
```

```
Last read 25-Sep-80 15:22, 53 messages, 12 pages
```

```
| MS>MOVE (MESSAGES) ALL
 Into file: MAIL.TXT.1
 1:53
MS>
```

Always report instances of damaged message files to the system manager so that the cause can be eliminated.

APPENDIX B  
MESSAGE FILE FORMAT

MAIL.TXT is a message file. The DECmail/MS system can create other message files with the COPY, MOVE, SAVE OUTGOING-MESSAGES, and FILE commands. The GET command reads a message file and makes it the current message file.

A message file is an ASCII text file that follows certain conventions. If you must edit a message file using an editor, you must follow these conventions.

A message file contains one or more messages prefixed with prefix lines. Each message contains a message header and the message text, which are separated by (at least) one blank line. Figure B-1 shows the format of a message file:

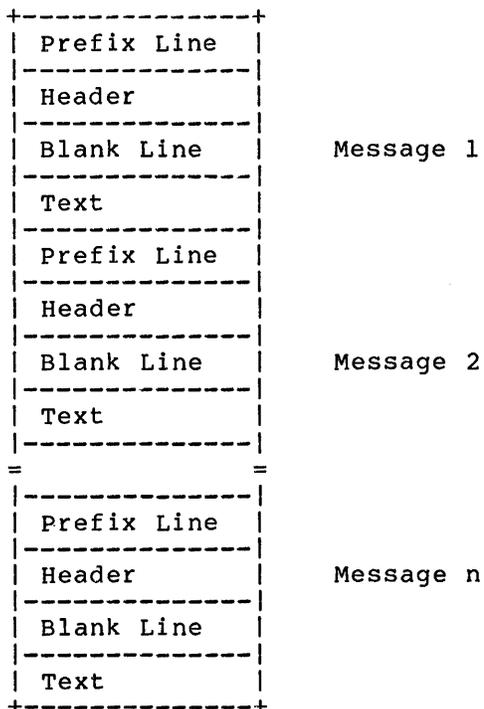


Figure B-1: Message File

## MESSAGE FILE FORMAT

Each message conforms to the ARPANET message format standard, known as RFC822. This standard is publicly available and so is not described here.

The remainder of this section describes the format of the prefix line.

The prefix line is a single line of text, terminated by a carriage-return/line-feed. It contains:

- o The date and time the message was received
- o A comma
- o The length of the message, in characters (this length does not include the prefix line)
- o A semicolon
- o 12 octal digits, representing 36 message bits.

### Example

```
12-Oct-81 16:56:28,323;000000000001
```

This prefix line describes a message received on Oct. 12 at 4:56 PM which is 323 characters long. All the message flags except the rightmost, bit 35, are off.

The following message bits are currently defined:

| Bit | Meaning                     | Name   |
|-----|-----------------------------|--------|
| 35  | Message has been seen       | M%SEEN |
| 34  | Message is deleted          | M%DELE |
| 33  | Message is flagged          | M%ATTN |
| 32  | Message has been replied to | M%RPLY |

The remaining 32 bits are reserved for future use.

The prefix line is not considered to be part of the message proper. The mail system creates this line as an incoming message and is added to a mail file.

### READER'S COMMENTS

NOTE: This form is for document comments only. DIGITAL will use comments submitted on this form at the company's discretion. If you require a written reply and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form.

Did you find this manual understandable, usable, and well organized? Please make suggestions for improvement.

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Did you find errors in this manual? If so, specify the error and the page number.

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Please indicate the type of user/reader that you most nearly represent:

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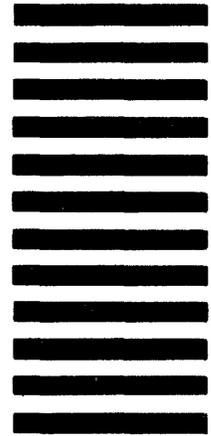
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